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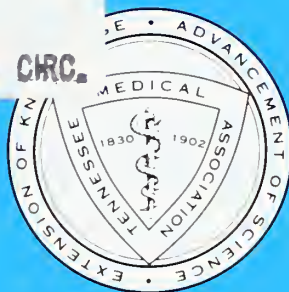
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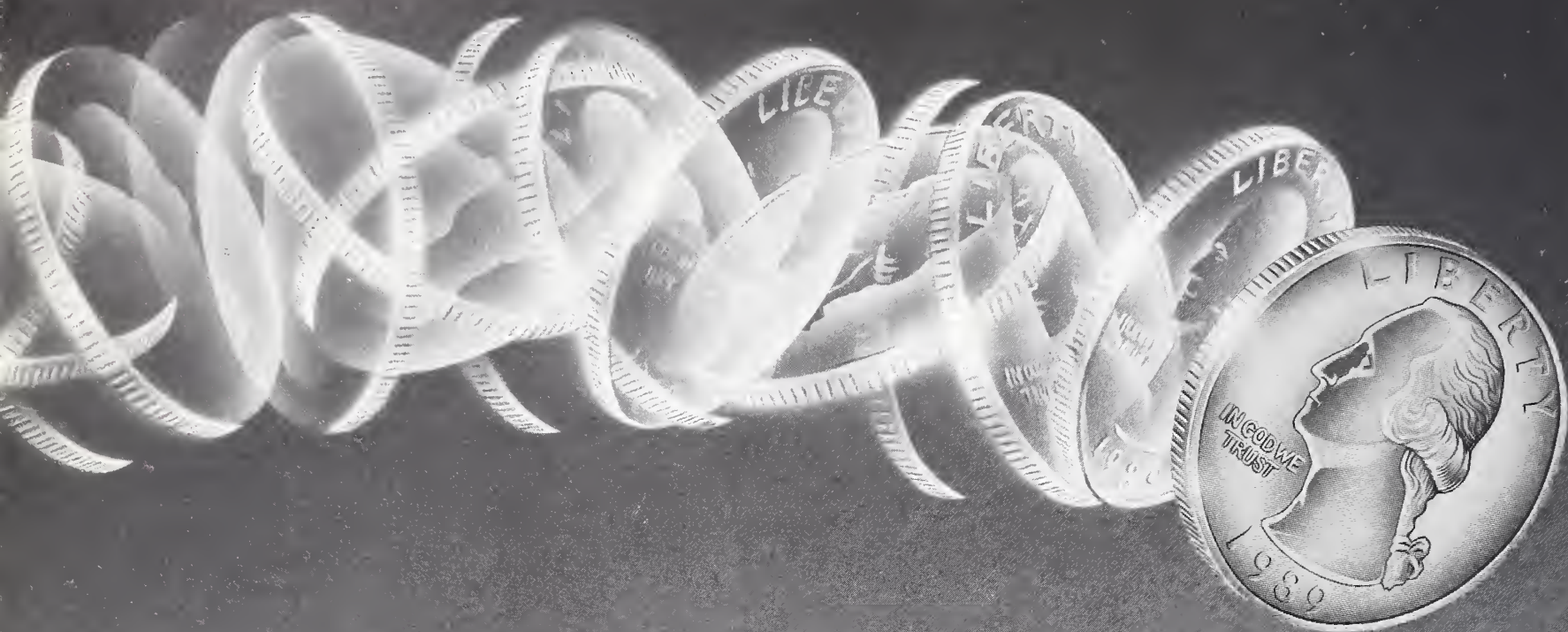
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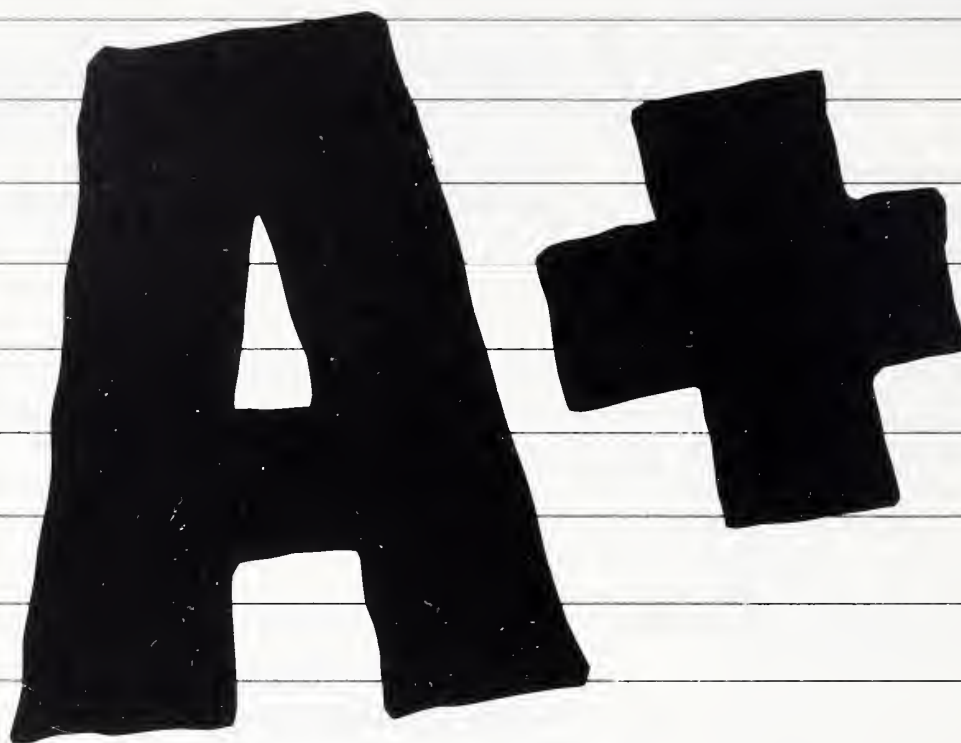
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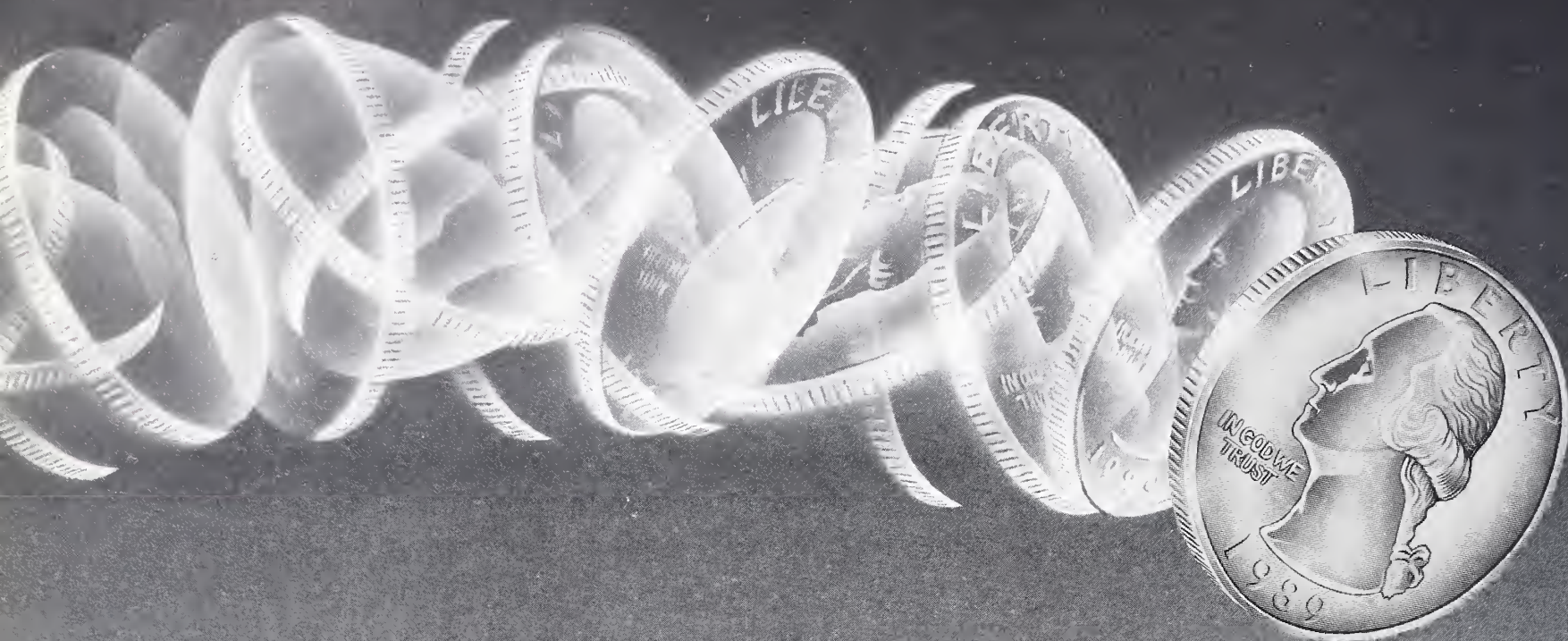
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# *Organ Transplantation In Tennessee 1989-1990*

*Report of the Tennessee Transplant Society  
and the TMA Committee on Organ Procurement*

JACKSON JOE YIUM, M.D.; MITCH GOLDMAN, M.D.; and  
WILLIAM H. FRIST, M.D.

## **Introduction**

The success of kidney transplantation for end-stage renal disease has been followed by successful transplantation of hearts, livers, lungs, and pancreas. Cadaver donor graft survivals of over 85% have resulted in better lifestyles and prolongation of life. As a result, the number of solid organ transplants

performed in the United States in 1990 increased over 1989 by 15%, from 13,176 to 15,162 transplants (UNOS report).

This report summarizes organ transplantation and retrieval activity in Tennessee from 1989 to 1990. During this period, organ transplantation increased in all categories (kidney, heart, liver, lungs, pancreas), except for combined heart-lung transplants. Concomitant with this success, the number of patients on the waiting list has increased. New transplant

Reprint requests to Erlanger Medical Center, 975 E. 3rd St., Chattanooga, TN 37403 (Dr. Yium).

**TABLE 1**  
**ORGAN TRANSPLANTS PERFORMED IN 1989-1990 IN ALL OF TENNESSEE**

	Kidneys	Heart	Liver	Pancreas	Heart/Lung	Lung	Total
Total candidates for transplantation 1989-1991	825	202	51	69	11	8	1,166
Total number of transplants (% of total candidates)	338 47%	121 60%	37 73%	47 68%	2 18%	5 62%	600 51%
Total number of patients died waiting 1989-1990 (% of total candidates)	34 4%	41 20%	6 12%	3 4%	4 36%	0 0	88 8%
Total solid organs recovered: 1/1/89 to 12/31/90 (% of total candidates)	439 53%	94 47%	138 271%	49 71%	0 0	5 62%	725 62%

TABLE 2

CHANGE IN TRANSPLANT WAITING LIST IN ALL OF TENNESSEE  
JANUARY 1, 1989 - DECEMBER 31, 1990

	Kidneys	Heart	Liver	Pancreas	Heart/Lung	Lung	Total
Number of patients on list as of 1/1/89	374	29	6	2	4	0	415
Number of patients on list as of 12/31/90	437	81	14	22	9	3	478
(% of change: 1989-1990)	17%	179%	133%	1000%	125%	300%	15%

programs in kidney and liver have been initiated and accessibility to transplantation has increased. While organ donation and retrieval in Tennessee exceeds the national average, the number of patients in the state needing organs has grown out of proportion to the increase in donor numbers.

### Solid Organ Transplantation

As a result of the shortfall of organs and the increasing number of candidates, a number of patients have died while on the waiting list during this period (Table 1). Heart, liver, pancreas, and lung transplantation showed the largest increase in activity in both transplants and additions to the waiting list (Table 2). Heart transplantation was the area of most need, with 179% increase for those waiting and 20% (41 patients) mortality for patients waiting but not receiving a transplant.

Fewer than 50% of candidates for kidney transplants received transplants. In addition, there has been an increase in the number of patients waiting. These figures do not include living related renal

TABLE 3

SOLID ORGAN TRANSPLANT CENTERS IN TENNESSEE  
(LOCATIONS AND TYPES OF TRANSPLANTS PERFORMED)

#### East Tennessee

##### Chattanooga

Erlanger Medical Center—Kidney

##### Knoxville

University of Tennessee Medical Center—Kidney

##### Johnson City

Johnson City Medical Center—Kidney

#### Middle Tennessee

##### Nashville

Centennial Medical Center/Park View Hospital—Kidney, Kidney-Pancreas

St. Thomas Hospital—Heart, Kidney

Vanderbilt University Hospital/VAMC—Heart, Kidney, Liver, Lungs, Kidney-Pancreas

#### West Tennessee

##### Memphis

Baptist Memorial Hospital—Heart

LeBonheur Hospital—Heart

Methodist Hospital—Heart

University of Tennessee Medical Center—Kidney, Kidney-Pancreas, Liver, Pancreas

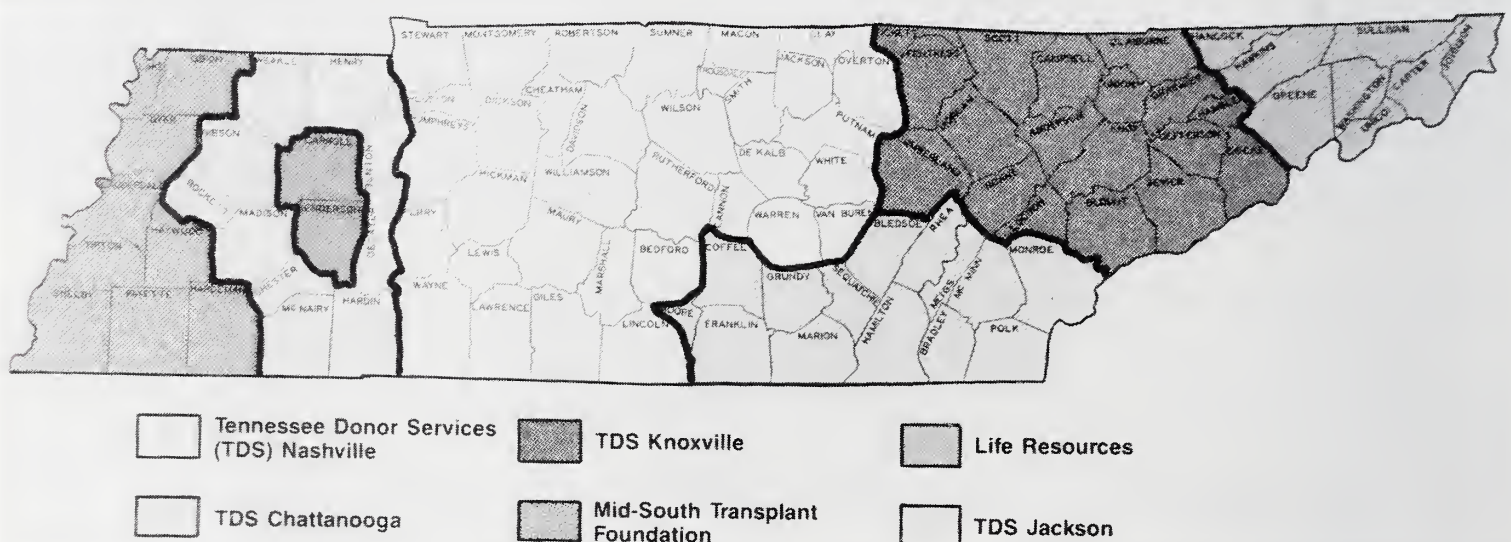
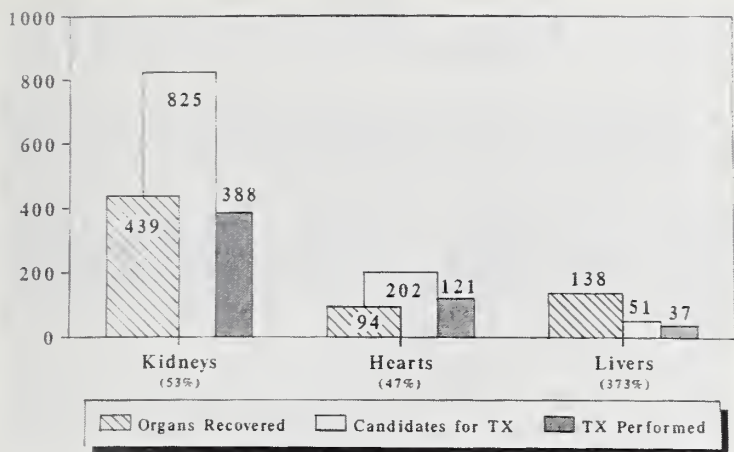


Figure 1. Distribution of counties within service areas of Tennessee organ procurement agencies.



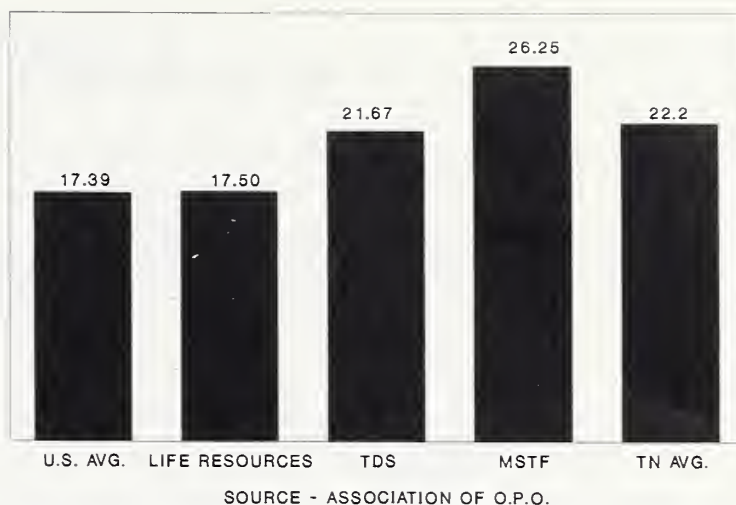


**Figure 2.** Solid organs recovered for transplants in all of Tennessee.

transplants, of which 134 were performed in 1989-1990. In 1989, new centers were established in Nashville at Park View and St. Thomas Hospitals, and in Chattanooga at Erlanger Medical Center. In 1990, Johnson City Medical Center began a kidney transplant program, and Vanderbilt University Hospital started a liver transplant program (Table 3). The opening of new kidney transplant centers will increase accessibility for kidney transplants. What impact this will have on the number of patients waiting in Tennessee is uncertain at this time, although increased accessibility is expected to increase demand. When extrarenal organs are harvested with kidneys, the whole state will benefit from these new programs.

### Organ Donation and Retrieval

There are six organ procurement organizations (OPOs) in Tennessee, covering the state (Fig. 1). These organizations are responsible for the organs recovered in Tennessee. There were 1,166 total candidates for transplantation of all organs: they received a total of 725 organs, for a 62% transplant rate. Of 439 kidneys procured for cadaver donation, 388 were transplanted in Tennessee (Fig. 2). There was a net export of kidneys from Tennessee. Ninety-four hearts were recovered and 121 were transplanted, indicating a net import of hearts. With only one liver transplant program, there was a net exportation of livers. While Tennessee recovered an above-average number of organs, given the randomization of matching not all organs could be used in the state. Mid-



**Figure 3.** Tennessee organ procurement organizations—Two-year summary, 1989-1990. (Figure represents donors per million population served.)

South Transplantation Foundation in Memphis had the best overall average (26.25 donors per million population followed by Tennessee Donor Services and Life Resources). Overall, the Tennessee average of 22.2 exceeded the national average (Fig. 3).

### More Organ Donation Needed

Increasing success rates of organ transplantation has led to more transplantation throughout Tennessee during 1989-1990. New transplant centers in kidney and liver will increase accessibility to transplantation. Even with an increase in transplants, the number of patients waiting has also increased. Yearly, approximately 20 patients died while waiting for a heart transplant.

In organ donation and retrieval, Tennessee has been productive and exceeds the national average. Because a large number of patients continue on the waiting list, increasing organ donation remains a major objective for successful transplantation for many Tennessee citizens. The Tennessee Transplant Society and TMA urge all Tennessee physicians and health care personnel to support the effort to increase organ donation.

#### Acknowledgment:

We appreciate the cooperation of Life Resources, Tennessee Donor Service, and Mid-South Transplantation Foundation organ procurement agencies of Tennessee.

# *Clinical and Metabolic Characteristics of Diabetic Ketoacidosis*

ALEXANDER TAL, M.D.

## **Introduction**

Diabetic ketoacidosis (DKA) is defined as a state of acidosis induced by an excess production of ketoacids in a diabetic patient. The biochemical characteristics of DKA are hyperglycemia, hyperketonemia, and acidosis. Prior to the availability of insulin, DKA was almost universally fatal.

But, even after the discovery of insulin, DKA continued to be a significant medical emergency. According to the mortality statistics compiled by the National Commission on Diabetes, DKA accounts for at least 4,000 deaths per annum in the United States. Current mortality rates differ widely throughout the United States, varying from 0% to 19%, with an average of 10%.<sup>1-4</sup>

Many clinical conditions have been associated with the development of ketoacidosis and have been considered as triggering factors, with infection being the most common precipitating factor in DKA.<sup>1,2</sup> Myocardial infarction, infection, pancreatitis, and cerebrovascular disease are major contributing causes of death.<sup>1-5</sup> Stress in any form, however, can lead to the metabolic decompensation.<sup>6</sup>

At least four major factors are implicated in the pathogenesis of DKA that may increase gluconeogenesis and ketogenesis: insulin deficiency, stress hormone excess, fasting, and dehydration.<sup>2,3,7-10</sup> The prevention of metabolic decompensation in the stressed diabetic patient is based on controlling these four conditions.

This retrospective study presents clinical and metabolic data of 20 patients with DKA, the precipitating factors are considered, and the pathogenesis of DKA is discussed.

## **Materials and Methods**

We reviewed 20 random charts of patients with DKA who were admitted to the medical floors in our hospital from July 1985 through December 1986.

Determinations of plasma glucose, carbon dioxide content, blood urea nitrogen (BUN), creatinine, electrolytes, pH, serum ketones, hematocrit, and white blood cell (WBC) count were made in the laboratory upon admission to the hospital, before the patients received any therapy.

Plasma osmolality was calculated according to the formula:

$$\text{mOsm/L} = 2(\text{Na} + \text{K}) + \text{plasma glucose}/18 + \text{BUN}/2.8$$

Additional diagnostic studies included electrocardiogram, chest roentgenogram, and cultures from blood, urine, and sputum. All the patients were treated according to the DKA protocol of our department (Appendix).

## **Results**

### **Clinical Characteristics of Patients with DKA.**

The clinical information on the 20 patients with DKA is summarized in Table 1. Ten patients were men and ten were women. Their mean age was 42, with a range from 17 to 69 years. Fifteen (75%) were previously known to have diabetes and were treated with insulin. Of these, three were hospitalized in the past for DKA (two with brittle type). Eleven (55%) patients had family history of diabetes mellitus.

Fifteen (75%) patients had associated nondiabetic illnesses. The most common associated problems were alcoholism (7 patients), hypertension (6 patients), chronic pancreatitis (4 patients), and heart disease (2 patients). Twelve (60%) patients entered the hospital with alteration of sensorium; of these, only five were in frank coma, the others being lethargic or moderately confused.

The common symptoms preceding the episode of DKA were polyuria and polydipsia (15 patients—75%), nausea and vomiting (13 patients—65%),

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**TABLE 1**  
**CLINICAL DATA ON PATIENTS WITH DIABETIC KETOACIDOSIS**

Pt/Sex/Age	History of Diabetes	Diabetic Treatment	Nondiabetic Illness	Medication	Family History of Diabetes	Precipitating Factors	Symptoms Prior to Admission	Status on Admission
1/M/52	None	None	Alcoholism	None	Negative	Pneumonia	Polyuria, polydipsia, nausea, vomiting, weight loss	Alert
2/F/23	10 yrs	70 U NPH	None	None	Positive	Noncompliance	Anorexia, nausea, vomiting, polyuria, polydipsia	Alert
3/F/44	None	None	Hypertension	Thiazides	Positive	Diuretics	Weakness, nausea, vomiting, polyuria, polydipsia	Coma
4/M/17	8 yrs, brittle, s/p DKA	22 U NPH (am) 11 U Regular	Tuberculosis	None	Positive	?	Anorexia, weakness, dizziness, nausea, vomiting, polyuria, polydipsia, confusion	Coma
5/M/52	?	?	Peptic ulcer	None	Negative	Pneumonia, GI bleed	Nausea, vomiting, anorexia	Coma
6/F/43	4 yrs	70 U NPH	Alcoholism, chronic pancreatitis	None	Negative	Acute sinusitis, URI	Anorexia, polyuria, polydipsia	Alert
7/M/30	2 yrs	25 U NPH (am) 5 U Regular	Alcoholism, chronic pancreatitis	None	Negative	Noncompliance	Headache, dizziness, polyuria, polydipsia, confusion	Lethargic
8/F/56	23 yrs	20 U NPH	Hypertension, CAD	Methyldopa	Positive	Acute MI	Weakness, dizziness, nausea, vomiting, polydipsia, polyuria, confusion	Coma
9/M/61	28 yrs	20 U NPH (am) 12 U NPH (pm)	Hypertension, pacemaker, CHF	Digoxin, Furosemide, Prazocin, Aminophylline	Negative	CHF	Dyspnea, weakness	Alert
10/M/69	20 yrs brittle, s/p DKA	36 U NPH (am) 2 U Regular 14 U NPH (pm)	Hypertension, CVA	Aspirin, Dipyridamole, Hydrochlorothiazide	Positive	Noncompliance	Weakness, dizziness, nausea, vomiting, polyuria, polydipsia, confusion	Lethargic
11/F/57	18 yrs, s/p DKA	25 U Lente (am) 4 U Lente (pm)	None	None	Negative	UTI	Weakness, dizziness, polyuria, polydipsia, nausea, vomiting	Lethargic
12/F/42	3 yrs	24 U Lente	None	None	Positive	Gastroenteritis	Nausea, vomiting, diarrhea, weakness, polyuria, polydipsia	Lethargic
13/M/38	4 yrs	26 U Lente	Alcoholism	None	Positive	Noncompliance	Weakness, dizziness, polyuria, polydipsia	Alert
14/M/24	4 yrs	35 U NPH (am) 7 U NPH (pm)	None	None	Negative	URI	Nausea, vomiting	Alert
15/F/67	None	None	Hypertension	None	Negative	Right foot gangrene	Weakness, dizziness, confusion	Lethargic
16/M/17	4 yrs	16 U NPH	None	None	Positive	URI	Polydipsia, polyuria	Alert
17/F/38	2 yrs	32 U NPH	Alcoholism, chronic pancreatitis, s/p pancreatectomy	Pancrealipase	Negative	Noncompliance	Weakness, polyuria, polydipsia, dizziness	Alert
18/F/29	None	None	Alcoholism, seizures	Phenytoin	Positive	Aspiration pneumonia	Hyperventilation, nausea, vomiting, confusion, polyuria, polydipsia	Coma
19/F/37	4 yrs	58 U NPH (am) 4 U Regular	Hypertension, alcoholism, chronic pancreatitis	Pancrealipase, Spironolactone, Hydrochlorothiazide	Positive	Pneumonia	Weakness, nausea, vomiting, confusion	Lethargic
20/M/41	10 yrs	7 U NPH	Alcoholism	None	Positive	Noncompliance	Abdominal pain, anorexia, nausea, vomiting, polydipsia, polyuria	Lethargic

weakness (11 patients—55%), dizziness (8 patients—40%), confusion (7 patients—35%), and anorexia (5 patients—25%).

In 13 cases the onset of symptoms could be traced to several precipitating conditions: ten (50%) infections, one was receiving thiazide diuretic, one case of congestive heart failure, and one of acute myocardial infarction.

The other six patients were admitted because of failure to take insulin appropriately, and in one case there was no underlying precipitating cause. The treatment of all 20 patients with DKA was according to the protocol described in the Appendix.

All but two patients survived. One died of sepsis, and one of complications of myocardial infarction (Table 2).

#### Metabolic Characteristics of Patients with DKA.

The metabolic values of 20 patients with DKA are shown in Table 3. The mean initial plasma glucose level was 727 mg/dl, with a range of 390 to 1,555. All of the patients had elevated serum ketones (12 marked, 8 moderate). Nine patients had a blood glucose greater than 700 mg/dl. Of these only three were alert on admission; the others had altered mental status. The average blood pH was 7.13 and the average serum bicarbonate 7.1 mEq/L. In three patients the blood pH was below 7.0, with serum

bicarbonate less than 2.5 mEq/L; of these one died. There were no dramatic changes in the serum electrolytes. In five patients the serum sodium was below 125 mEq/L, and serum chloride below 90 mEq/L.

The serum potassium was elevated (>5.5 mEq/L) in six patients, and was associated in most of the cases with elevated levels of BUN (>40 mg/dl) and creatinine (>2.8 mg/dl) that indicated severe dehydration with decreased renal functions. Seventeen (85%) patients had elevated WBC counts (>10,000/cu mm) on admission (Table 2). Of these, four cases had positive cultures or radiographic evidence of infection. In the other 13 patients, the elevated WBC count was related to the stress produced by DKA.

Most of the electrocardiograms showed sinus tachycardia. One patient had an acute myocardial infarction, one was receiving pacemaker rhythm, and in one there was a second degree AV block of Mobitz type I.

## Discussion

**Clinical Observation.** The clinical picture of DKA observed during this study revealed common symptoms of polydipsia and polyuria, nausea and vomiting, weakness, dizziness, and confusion. Only 12 (60%) of the 20 patients had altered mental status,

TABLE 2

LABORATORY DATA ON ADMISSION

Pt	WBC Count (cu mm)	Hemoglobin (gm/dl)	Hematocrit (%)	Electrocardiogram	Chest Roentgenogram	Cultures
1	31.2	16.1	48.9	Sinus tachycardia	Pneumonia	Positive in sputum
2	25.2	14.1	46.5	Sinus tachycardia	WNL*	Negative
3	19.6	10.4	35.5	Sinus tachycardia	WNL	Negative
4	11.3	13.1	40.2	NSR†	WNL	Negative
5‡	7.3	10.6	13.3	Sinus tachycardia	Pneumonia	Positive blood/sputum
6	10.6	14.8	45.6	NSR	WNL	Negative
7	10.3	16.0	49.8	NSR	WNL	Negative
8‡	28.8	13.5	46.3	Anteroseptal MI	WNL	Negative
9	9.8	10.0	32.2	Pacemaker rhythm	WNL	Negative
10	15.4	13.6	40.2	Peaked T waves	WNL	Negative
11	26.2	11.9	41.5	Sinus tachycardia	WNL	Positive in urine
12	22.4	10.9	36.5	Sinus tachycardia	WNL	Negative
13	18.7	12.7	41.4	Sinus tachycardia	WNL	Negative
14	12.4	16.9	51.9	Mobitz type I	WNL	Negative
15	49.8	10.9	34.2	Sinus tachycardia	WNL	Positive of right foot
16	8.9	13.4	38.6	NSR	WNL	Negative
17	10.8	10.7	31.9	NSR	WNL	Negative
18	15.8	16.2	49.0	Sinus tachycardia	Pneumonia	Negative
19	14.4	11.1	34.2	Sinus tachycardia	Pneumonia	Positive in sputum
20	11.9	12.3	37.1	Sinus tachycardia	WNL	Negative

\*WNL—within normal limits.

†NSR—normal sinus rhythm.

‡Patients 5 and 8 expired from complications of sepsis and myocardial infarction, respectively.



which points out the necessity of suspecting the condition in all hyperglycemic dehydrated patients. Although DKA is a known complication of insulin dependent diabetes mellitus (IDDM), it should be emphasized that it may also occur in non-IDDM as well. In 13 (65%) patients with DKA an associated precipitating condition was identified, the most common being infection (10 cases—50%). Seven (35%) had no identifiable precipitating cause; of those, four were chronic alcoholics, two were young adults with IDDM, and one a 69-year-old man with hypertension and an old cerebrovascular accident. History obtained from the patients or their families indicated that all of the seven were noncompliant with their insulin therapy. They either ran out of insulin or tended to take it sporadically or when they “felt” it necessary. They were all noncompliant with their diet, and their understanding of the disease and its complications was very poor.

**Pathogenesis.** At least four conditions are implicated in the pathogenesis of DKA:

*Insulin deficiency*, which results in a shift in liver metabolism from glucose storage to glucose release, and accelerated gluconeogenesis. The second metabolic effect of inadequate amounts of insulin is activation of hepatic ketogenesis.<sup>11</sup> Although a diabetic

patient can induce ketoacidosis by omitting insulin, this is an unusual cause of DKA, and may require several days in the unstressed patient.<sup>12,13</sup> Therefore, simple failure to take insulin may not be sufficient to cause DKA, unless accompanied by elevated levels of stress hormones, i.e., glucagon, catecholamines, cortisol, and growth hormone.<sup>9,10</sup>

*Stress hormones*—Although infection is the most common precipitating cause of DKA,<sup>1</sup> metabolic decompensation can occur from any type of stress, physical or mental.<sup>6</sup> It has been demonstrated that each of the above stress hormones can induce a rise in plasma glucose and ketones,<sup>7</sup> and that their elevation may participate in stress-induced metabolic decompensation that leads to DKA.

*Fasting*—Hyperketonemia can induce nausea and vomiting leading to decreased food and fluid intake. As a consequence there is a decrease in peripheral utilization of ketone bodies and elevation in the levels of stress hormones that results in even greater ketone-bodies production.<sup>14</sup>

*Dehydration*—All patients with DKA appear dehydrated, with total body fluid deficit of about 5 liters.<sup>2</sup> The most important factor is osmotic diuresis, but there are other factors such as fever, vomiting, diarrhea, and hyperventilation that contribute to the

TABLE 3  
METABOLIC CHARACTERISTICS ON ADMISSION

Pt	Glucose (mg/dl)	Ketones*	pH	Bicarbonate (mEq/L)	Na (mEq/L)	K (mEq/L)	Cl (mEq/L)	Calculated Serum Osmolality (mOsm/L)	Anion Gap	BUN (mg/dl)	Creatinine (mg/dl)
1	802	Moderate	7.26	9.7	106	2.8	83	271	13	20	1.2
2	720	Moderate	6.98	2.3	129	5.2	94	317	33	25	2.8
3	1555	Marked	7.09	6.0	126	5.5	86	370	34	61	3.5
4	510	Moderate	7.08	6.0	130	4.9	97	305	27	20	1.1
5	798	Marked	7.24	12.0	132	3.3	94	331	26	48	2.4
6	604	Marked	7.28	10.0	121	4.8	91	294	20	28	1.3
7	390	Marked	7.01	3.0	131	5.5	98	300	30	15	2.6
8	914	Marked	6.89	1.7	116	7.3	87	317	27	59	3.3
9	586	Moderate	7.21	10.0	118	3.6	90	284	18	25	1.5
10	456	Moderate	7.24	10.0	134	6.0	96	319	28	40	2.8
11	996	Marked	7.12	6.0	136	5.6	110	357	20	52	4.9
12	702	Marked	7.10	5.0	132	5.8	97	327	30	36	2.8
13	672	Moderate	7.20	10.0	131	4.4	99	318	22	31	3.3
14	417	Moderate	7.22	11.0	136	4.3	98	312	27	23	1.8
15	660	Marked	7.21	5.0	140	3.4	106	337	29	40	4.4
16	512	Moderate	7.28	12.0	137	3.8	106	315	19	15	1.0
17	1206	Marked	7.16	9.0	124	5.7	88	328	27	35	2.2
18	507	Marked	6.92	2.0	131	6.5	103	306	26	10	2.8
19	718	Marked	7.07	5.0	135	3.4	105	320	25	10	1.2
20	820	Marked	7.12	6.0	131	3.8	96	319	29	12	1.1
Average	727		7.13	7.1	129	4.8	96	317	25.5	30	2.4

\*Serum ketone bodies: Moderate 40 to 79 mg/dl; Marked >80 mg/dl.

dehydration. As a result of dehydration patients develop prerenal azotemia and decrease in glomerular filtration rate (GFR), which leads to significant elevation in blood glucose.<sup>8,15</sup>

**Metabolic Aspects and Treatment.** The characteristic metabolic abnormalities of DKA seen in our patients are listed in Table 3. The metabolic acidosis and the increased anion gap are mainly due to elevated levels of ketones, i.e., acetoacetate and betahydroxybutyrate. Although the initial potassium concentrations are normal to high, there is a total body deficit of several hundred milliequivalents. The serum sodium and chloride concentrations appear to be low, mainly due to osmotic diuresis. In addition, a very low sodium level suggests presence of severe hyperglycemia and hypertriglyceridemia. Increased levels of BUN and creatinine reflect prerenal azotemia that is usually modest and reversible with treatment.

Therapy of DKA is described in the Appendix. The essential cornerstones of the treatment include insulin therapy and rehydration. We prefer the low dose insulin therapy by continuous intravenous infusion. It is physiologic and simple, and tends to avoid hypokalemia and hypoglycemia.<sup>15,16</sup> Rehydration is accomplished with isotonic solution of sodium chloride to maintain intravascular volume.

Potassium is given to prevent fatal arrhythmias.<sup>17</sup> It is usually administered after the first liter of fluids and after urine output is established. In view of phosphate depletion, we prefer to administer a portion of the potassium as potassium-phosphate. Bicarbonate is used only if the arterial pH is 7.1 or less.<sup>18</sup>

The mortality rate associated with DKA ranges from 0% to 19%. This discrepancy in mortality is explained by the method of reporting and the differences between patient populations studied. In addition, the reasons for the metabolic decompensation may vary from one study group to the other. Thus, when there are associated illnesses such as myocardial infarction or sepsis, which may contribute to the deterioration and death of the diabetic patients, the mortality rate is enhanced.<sup>1,3-5</sup>

Most of the patients in our study (90%) responded to the treatment and recovered. Although our mortality rate is 10%, it seems that these two patients died of unrelated complications (sepsis and myocardial infarction) and not from DKA itself.

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## APPENDIX

### Treatment of Diabetic Ketoacidosis

#### A. Insulin

1. Inject 10-15 units of regular insulin IV push, followed by a constant infusion of 0.1 U/kg/hr (6-10 U/hr).
2. When plasma glucose decreases to 250-300 mg/dl, dextrose 5% is started and the amount of insulin is decreased to 2-3 U/hr.
3. When stable, may switch to regular insulin subcutaneously every four hours.

#### B. Fluids

1. Normal saline (0.9%) or one-half normal saline (0.45%) are infused at 1,000-2,000 cc in the first hour, and 1,000 cc in the second, and then at 500 cc/hr.
2. The rate depends on urine output, blood pressure, and central venous pressure measurements.

#### C. Potassium Replacement

1. If serum K is >5.0 mEq/L, then no K is added. If serum K is 4-5 mEq/L, add KCl to IV fluids and infuse at 20-40 mEq/hr. If serum K is 3-4 mEq/L, then 40-60 mEq/hr of KCl are given with close monitoring of ECG and K levels.
2. Potassium replacement may be given as K phosphate at rate of 10-15 mmol/hr for a total of 80-120 mmol/24 hr.

#### D. Bicarbonate Therapy

1. If the pH is <7.1, then 1-2 ampules of sodium bicarbonate should be added to a liter of hypotonic saline (0.45%) and infused over one to two hours.

#### E. General Guidelines

1. Investigate precipitating factors: routine urinalysis, CBC, ECG, chest roentgenogram, and appropriate cultures should be performed initially.
2. Serum glucose, electrolytes, and ABG should be monitored every one to two hours until normal levels are approached.
3. Calcium, phosphate, and magnesium should be measured initially and repeated as indicated.
4. Temperature, blood pressure, urinary output and central venous pressure should be monitored at frequent intervals.



# Management of Complex Perineal Injury

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## Introduction

Major perineal soft tissue wounds are frequently accompanied by a great deal of morbidity. Associated injuries are common and the wounds are predisposed to septic complications. In patients surviving the initial injury, pelvic sepsis may be fatal. These complications can be minimized by an aggressive systematic approach to local wound care. The following patient illustrates many of the problems associated with such injuries.

## Case Report

A 31-year-old man was involved in a motorcycle accident in a rural area. He was initially hemodynamically unstable, with a pulse of 130/min and blood pressure of 80/60 mm Hg. He responded appropriately to infusion of 2 liters of lactated Ringer's solution, and was transported from the scene to the Presley Regional Trauma Center via helicopter.

On arrival, he was awake, alert, and hemodynamically stable. His injuries included bilateral forearm fractures (left side open), an open right tibial and fibular fracture, a left femoral fracture, an open book pelvic diastasis (6 cm), and a large perineal laceration. This laceration included a degloving component, with a large cutaneous flap extending over his symphysis, and smaller flaps down both thighs medially. The laceration extended to, but did not involve, the anus. The scrotum was contused but not torn. Because of hematuria and suspicion of visceral injury, abdominal CT, retrograde urethrogram, and cystogram were done; all were normal. He was taken to the operating room for diverting colostomy, feeding jejunostomy, and debridement and pulsatile irrigation of his perineum. The orthopedic surgeons stabilized all of his fractures. He returned to the operating room on four consecutive days for irrigation and debridement of his perineum. The wound appeared clean without signs of sepsis, and he subsequently had skin grafting. The graft was about 90% successful, and he was eventually discharged from the hospital, walking with assistance.

## Discussion

Patients with major perineal injuries are most often victims of motor vehicle, motorcycle, or motor vehicle-pedestrian accidents; they frequently have associated life-threatening injuries such as pelvic fractures and intra-abdominal injuries, and identification of such life-threatening injuries assumes priority over initial wound

care. A detailed search for craniocervical, chest, and abdominal injuries should be made.

The most frequent injury associated with perineal injuries is pelvic fracture. When a major pelvic fracture is present, a thorough search for associated abdominal, urethral, bladder, rectal, and vaginal injuries should be made. If the pelvic fracture is unstable or associated with massive hemorrhage, early external fixation for stabilization is imperative. Routine proctoscopy and anoscopy under anesthesia is necessary to detect occult rectal or anal injuries. Once definitive care is rendered to associated life-threatening injuries, the perineal wound should be addressed.

This patient illustrates many of the problems in dealing with major perineal wounds. The management of such injuries can be difficult even under the best of circumstances. We favor an organized approach centering on aggressive local wound care. The essential elements of this approach are (1) identification and treatment of associated injuries; (2) fecal diversion with rectal irrigation; (3) early and aggressive initial wound debridement; (4) provision of access for enteral nutrition; (5) daily irrigation and debridement with a pulsatile irrigation system; and (6) early coverage of wounds with split thickness skin graft if feasible.

With major perineal injuries, most late morbidity and mortality is associated with pelvic wound sepsis.<sup>1-4</sup> The combination of massive soft tissue injury, hematoma, inadequate debridement, and fecal soilage is frequently lethal. Constant fecal contamination can be eliminated by performing a diverting colostomy with distal rectal washout for all major perineal injuries. This greatly simplifies wound care of the massive perineal injury, and permits early wound coverage with skin grafting.

Aggressive sharp wound debridement combined with pulsatile irrigation minimizes the chance for later pelvic sepsis. A careful search should be carried out for foreign bodies and ischemic skin flaps. Degloving type injuries can appear trivial until the extent of the wound is examined under general anesthesia. If the skin over a degloved segment appears contused, it should be debrided, since it is most likely ischemic and not bruised. Skin bridges between open areas should likewise be debrided because further necrosis is a vir-

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tual certainty. Flaps should not be left *in situ*. Necrotizing infection can start deep to the flap, or more likely the flap will become necrotic. If a large ischemic flap is debrided, consideration should be given to harvesting and banking the skin for later grafting.

These patients will be unable to resume normal oral feedings, since they return to the operating room daily for the first several days. To permit early enteral feedings, a catheter jejunostomy should be strongly considered on all patients at the time of the diverting colostomy. Although parenteral nutrition is an alternative, there is now considerable literature demonstrating the superiority of enteral nutrition in the trauma patient.<sup>5,6</sup> The jejunal feedings need not stop the night before planned reexploration of the wound, since there is little chance of aspiration of jejunal feedings. If a jejunal catheter is not feasible, then nasoduodenal feedings with a Dobhoff-type catheter can be used.

Following the initial debridement and colostomy, aggressive wound care is mandatory. The combination of frequent dressing changes and daily intraoperative wound irrigation and debridement has resulted in the lowest incidence of local wound problems in our hands.<sup>7</sup> The duration of the daily intraoperative wound debridements is a matter of judgment, but three to five days seems to be optimal for major wounds. At that time, definitive wound coverage may be performed as long as the wound is healthy. In reviewing our previous experience with these injuries, the wound sepsis rate was dramatically higher in patients treated without daily debridement.<sup>7</sup> Because of their location these wounds are notoriously difficult to manage at the bedside; thus there is no substitute for the exposure and lighting that are found in the operating room. The pulsatile irrigation system may also contribute to improved wound cleansing and subsequently lower rate of sepsis.

Definitive wound coverage should be considered once the wound is clean. Some wounds may heal by secondary intention, but serious contracture can cause later problems, making late perineal reconstruction more difficult than early grafting. Early coverage with skin grafts, myocutaneous flaps, or both simplifies wound care and decreases the metabolic cost of a large wound. Success of the graft depends on adequate blood supply, absence of infection, and immobilization of the grafts. The last of these factors can be difficult to achieve due to the location of the wound. Following placement of the grafts, an air bed may aid in immobilization, prevent uneven pressure distribution, and promote drying of the donor sites.

In summary, massive perineal wounds pose a difficult management problem, but if a careful aggressive plan of wound management is institute, then septic complications can be minimized. This plan includes diversion of the fecal stream, aggressive initial and daily wound irrigation and debridement, enteral feedings, and early coverage when the wound is clean and without infection.

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April 1992						
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# An Unusual Cause of Hypertension

### Case Report

A 31-year-old man was admitted to Vanderbilt University Hospital for evaluation of hypertension refractory to medical treatment.

Twelve years prior to admission, the patient had enlisted in the Army. His blood pressure was normal. Ten years prior to admission, he was involved in a car accident and sustained a severe closed head injury and fractures of the left arm and leg. He was hospitalized for several months. The highest blood pressure recorded during that admission was 140/100 mm Hg.

One year prior to admission, the patient presented himself to his physician with a severe headache. He was found to have markedly elevated blood pressure. Antihypertensive medication was begun but his diastolic pressures remained in the 120 to 130 mm Hg range. He was referred to VUH for further evaluation. He denied symptoms of orthostasis, recurrent headache, sweating, palpitations, pallor, or nocturia, and did complain of exertional leg fatigue. He had no history of diabetes. He smoked a half pack of cigarettes each day. His medications at the time of admission were minoxidil 5 mg twice a day, atenolol 100 mg/day, furosemide 80 mg/day, and potassium chloride 16 mEq/day.

Physical examination revealed a well-developed and nourished young man, whose blood pressures measured in the supine position were 170/102 and 160/105 mm Hg in the right and left arms respectively, and left and right popliteal pressures were 110 and 130 mm Hg. The pulse was 88/min. Funduscopic examination revealed arteriolar narrowing. There were no carotid bruits. Cardiac examination revealed a grade 2/6 systolic ejection murmur and a fourth heart sound. There was a high-pitched epigastric bruit, and both femoral and distal lower extremity pulses were absent bilaterally.

Initial laboratory examinations were normal except for a creatinine of 2.1 mg/dl, and urine that contained 4+ protein. Radiograph of the chest was normal. The electrocardiogram showed left ventricular hypertrophy. Urine collected over 24 hours contained 6.38 gm of protein but showed normal concentrations of catecholamines, vanillylmandelic acid, and metanephrines. The creatine clearance was 45 ml/min. Serum protein electrophoresis, complement levels, hepatitis serologies, and antinuclear antibodies were all negative or normal. Abdominal aortogram performed via an axillary approach demonstrated an infrarenal aortic occlusion with stenosis of the right renal artery and occlusion of the left renal artery. Renal ultrasound showed a 10.8-cm right kidney and 8.6-cm left kidney; split renal function studies showed markedly decreased urine flow and creatinine clearance on the left. An echocardiogram revealed left ventricular hypertrophy, mild left atrial enlargement, a slightly decreased ejection fraction (EF 35% to 45%), and normal valves.

The patient was taken to the operating room, where he was found to have an infrarenal coarctation of the abdominal aorta with a hypoplastic left renal artery. There was thrombosis of

the aorta and iliac arteries distal to the renal arteries, partially occluding the right renal artery and totally occluding the left renal artery. A 14 × 7-mm Dacron "Y" graft was placed, and the right and left renal arteries were reimplanted into the Dacron graft via saphenous vein grafts. Two weeks postoperatively, the patient's blood pressure is well controlled by lisinopril alone. His creatinine is 1.3 mg/dl.

### Discussion

This case illustrates the importance of searching for correctable causes of hypertension in patients with hypertension that is difficult to control. The most common causes of curable hypertension include renovascular disease, coarctation of the aorta, primary aldosteronism, Cushing's syndrome, and pheochromocytoma. The frequency of these diagnoses among patients with hypertension ranges from 1% to 6%.<sup>1</sup> Hypertension due to these diseases is more prevalent among patients with accelerated or malignant hypertension.<sup>2</sup> Other features that should prompt a search for secondary causes in a patient with hypertension include age of onset before age 20 or after age 50, unprovoked hypokalemia, abdominal bruits, signs and symptoms of catecholamine excess, and an inadequate response to effective therapy.<sup>1</sup>

This case exemplifies the unusual combination of an abdominal coarctation of the aorta and renal artery stenosis, both causes of secondary hypertension. Coarctation of the aorta should be suspected in any child or young adult with hypertension. The most common site of coarctation (98%) is the descending aorta near the insertion of the ligamentum arteriosum.<sup>3</sup> Coarctation is frequently associated with other congenital malformations, including bicuspid aortic valve (40%), patent ductus arteriosum, ventricular septal defect, and mitral valve abnormalities.<sup>4</sup> Coarctation of the abdominal aorta, as seen in this patient, is rare.

Patients with coarctation may be asymptomatic, or may, like this patient, complain of claudication and leg fatigue. Eighty to ninety percent of patients with coarctation are hypertensive.<sup>4</sup> Systolic hypertension often exceeds diastolic hypertension. The mechanism of systemic hypertension is not certain, but may involve the renin-angiotensin system.<sup>5</sup> Late in the course of the disease patients may have signs and symptoms of long-standing hypertension—left ventricular failure, aortic

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(Continued on page 21)

# False Sense of Security

J. KELLEY AVERY, M.D.

### Case Report

Following a fall from the "monkey bars" on the school playground, a 7-year-old boy was brought to the emergency room of a children's hospital. After examination by the ER physician, the orthopedic surgeon on call was notified by phone. The office staff of the surgeon asked that the orthopedic resident be called to see the child.

The notes by the ER physician documented the fall at school. The examination noted that the patient was awake and alert, that there was swelling and deformity of the left elbow, and that no radial pulse could be felt. A pulse was identified by Doppler.

The resident recorded that the child was alert and in pain. The swelling/deformity was again commented upon, and the region of the elbow was tender. Examination of the affected arm further revealed, "No radial pulse on left but a weak pulse on Doppler." Good sensation was recorded and there was full range of motion of all fingers.

The orthopedist's note stated, "100% displaced left supracondylar fracture." In less than 15 minutes after admission to the ER the child had been premedicated. A procedure note written as an addendum to the admission history and physical stated that the elbow was prepped in the usual manner, a hematoma block was given with good analgesia, and fracture was "reduced without difficulty." The elbow was taped in flexion and supination of the forearm. A posterior splint was applied and the postreduction x-rays showed "some residual displacement, but well within the acceptable range with excellent position." Added in conclusion was, "Neurovascular status remained intact throughout."

The patient was admitted to the hospital for overnight observation, and a follow-up x-ray was interpreted as being satisfactory, although some posterior displacement persisted. Neurovascular checks were ordered at one-hour intervals. Shortly after reduction, about 1½ hours after admission to the ER, the resident recorded that the pulse was absent in the ER but was present on Doppler examination. At 2½ hours after admission, the resident recorded "good capillary refill."

The nurse on admission to the hospital recorded "fingers slightly cyanotic and cool." Four hours later, the nurse stated, "Fairly warm fingers and color improved—pink now, cool and blanch well." About 12 hours after admission a resident's note states, "Decreased sensation all fingers especially over the median distribution ulnar? Otherwise difficult to assess." Nurses' notes continued to record warm and pink fingers.

On the morning after admission, about 18 hours after the injury, a progress note states that there is decreased sensitivity over the median distribution but that this seems to be improving. Good capillary refill is mentioned. After an x-ray showed no change in the fracture, the child was discharged by the resi-

dent to see the attending surgeon in three days. The resident's discharge summary correctly relates the history of the injury and the reduction of the fracture. Some decrease in sensation over the median nerve distribution is still recorded and the fingers remained "dusky."

On the initial visit to the orthopedic surgeon, the same impaired sensation of the involved arm was reported. The speculation was that the nerve had been contused and would require a little more time to "wake up." At this time the surgeon reviewed the situation with the parents and spoke of possible damage or swelling involving the nerves in the arm. Subsequent visits continued to show a very disabled arm but a flawless position of the reduced supracondylar fracture.

This child had a severe contracture of the involved arm and hand that required multiple operations. There was complete palsy of the median and ulnar nerves. Permanent disability to that extremity is virtually total, with contracture at the elbow and a "claw-hand" deformity. A lawsuit was filed charging the attending physician and resident with negligence in the care of this little boy.

### Loss Prevention Comments

One of the first principles taught about supracondylar fractures is to pay *primary* attention to the neurovascular status of the extremity. This is especially true if there is any significant degree of posterior displacement of the fracture. The critical marker is the radial pulse. The radial artery crosses the elbow in close proximity to the distal humerus and thus with any posterior displacement of the distal fragment, the artery is subject to marked kinking and, in the process of reduction, is in danger of being pinched or severed at the fracture site.

In this case, the only mention of the radial pulse by a physician is that it is *absent*. Doppler examination is said to indicate some flow through the radial artery. How much? In retrospect, it can be said that the flow indicated by Doppler was too little! The nurses did the neurovascular checks at one-hour intervals, but this was limited to color and capillary refill. Color was referred to as "dusky" on more than one occasion.

The arm was "taped in flexion" after reduction of the fracture. With the swelling at the fracture site that was described at the initial examination, one could anticipate problems with adequate circulation, and this was aggravated by the fixation in flexion. Even with the early appearance of loss of sensation along the median distribution, there was no attempt to relieve the problem

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by reducing the amount of flexion at the elbow. True, the reduction might suffer, but the viability of the arm is the real concern.

What happened in this case? Did the attending physician depend too much on the observations of the residents? Did the residents depend too much on the "neurovascular checks" done by the nurses? Did they all put more faith in the Doppler findings than in the time-honored palpation of the radial pulse? Whatever the answer to those questions, the facts are that a 7-year-old little boy has a lifelong deformity of his arm that might have been prevented.

There is little doubt that the treatment team erred in not more adequately assessing the circulation of the arm when the radial pulse was found to be absent. There is likewise little doubt that the attending physician failed in his responsibility to monitor the care of his patient by those residents and nurses who could not be expected to have his degree of judgment.

This child did not get acceptable care when measured by a standard considered to be reasonable. The negligence here was such that defense of the attending physician and the resident was not possible. A six-figure settlement was required.

## Vanderbilt Morning Report . . .

(Continued from page 19)

dissection, and endarteritis.

Diagnosis of coarctation of the aorta can be made at the bedside by simultaneous palpation of upper and lower extremity pulses, as it was in this patient. Decreased pressures in the lower extremities confirm this finding. In patients with proximal coarctation, a continuous systolic murmur may be heard over the thoracic spine.<sup>4</sup> Additional murmurs may stem from collaterals or a bicuspid aortic valve. Subcutaneous collateral arteries may be seen between the scapulae or near the sternum, and there may be a palpable thrill in the suprasternal notch. Radiograph of the chest may demonstrate notching of the ribs by collateral vessels or a "3" sign, due to the prestenotic and poststenotic dilatation.

An abdominal bruit suggested renal artery stenosis in this patient. The two most common causes of renal artery stenosis and renovascular hypertension are atherosclerosis (60%) and fibromuscular dysplasia (35%).<sup>6</sup> An abdominal bruit may be heard in 46% of patients with renovascular hypertension, versus 9% of patients with essential hypertension.<sup>7</sup> Features of an abdominal bruit that suggest renal artery stenosis are a high pitch, lateral radiation, and a diastolic component. The diagnosis of renal artery stenosis is confirmed by arteriogram. Measurement of renal vein renins and split

renal function studies are necessary to determine the functional significance of renal artery stenosis in each patient.

Coarctation of the abdominal aorta with hypoplastic renal artery involvement has been described previously.<sup>5,8,9</sup> The embryogenesis of this anomaly may involve unequal fusion of primitive dorsal aortae with subsequent obliteration of one of them. Surgical correction often cures the hypertension.

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## Medical Education: Behind the Lectern

JOHN D. ROWE

We are living on the edge of great discoveries in the field of medicine. Our predecessors a century ago—even a half century ago—could only dream about the unparalleled achievements we have witnessed. Many of the mysteries of the human genome are now within our reach. We have seen the eradication of some diseases, the exponential growth of chemical therapeutics, and tremendous advancements in the area of radiologic and nuclear diagnostics.

Concomitant with this technological growth has been an increased emphasis on research in the medical school facilities. Many state-funded schools especially welcome the monies brought in by research grants as government cutbacks have left these schools financially strapped.

While we certainly cannot downplay the importance of progressive, far-sighted research, I believe the current emphasis has placed medical education in a rather precarious situation. There appears to be a tendency among the medical school systems to lose sight of their primary fiduciary function: that of training and educating tomorrow's physicians. Researchers with little or no interest in teaching medical students are pressed into service as part of their research agreements. Often the students are lectured more on the technical aspects of the particular scientist's field of interest than they are taught the basic sciences. And, more and more, schools are rewarding and promoting the research scientists on achievement in preference to the outstanding lecturers and professors.

With this shift in educational emphasis, I believe there is cause for alarm. The message sent to the academicians is that laboratory work is to be their vocation and teaching their hobby.

So, what can be done? First, there is a need to recognize that the recitation of factual information in a lecture setting cannot be confused with *teaching*. There is a vast difference. Any medical student can read a book of facts; however, that book of facts proliferates daily.

Without concerned and conscientious guidance from behind the lectern, students are eventually left to their own devices to decipher the volumes of material presented. The student essentially becomes self-taught and lectures are avoided.

Second, more needs to be done to reward the educators for their efforts. How can we expect anyone whose income is almost exclusively dependent on his research to spend large amounts of time away from his "job" to prepare for a "hobby" that was thrust upon him? We cannot. How can we expect an educator, who is sincerely devoted to teaching and encouraging future physicians, to remain enthusiastic when the promotions and rewards preferentially go to the successful researchers? Again, we cannot. Stanford, Harvard, and others have instituted programs to monitor and educate the educators and to reward those who excel. Where are we?

Lastly, there has been an inadvertent separation of the basic sciences from the clinical sciences at many schools. Much of the basic science material is now presented by professors who have had little clinical experience and in some cases have even less interest in clinical application. The result is a disjointed bastardization of medical education. We need the clinical scientists to offer their input, expertise, and direction to the course content of the basic sciences.

I realize the condition of medical education today is not going to be radically improved overnight. There are no simple solutions. I do believe, however, that changes can and should be made. Whether the changes begin at the level of the respective state governments, or with the various alumni associations, or at an individual level with you and me is not the question. I suspect, in the end, it will likely be a combination of all the above. The question will be how we view the future of the science and the art of medicine. Perhaps the answer lies in the hands of the administrators. Maybe it will find root in the dedication of present physicians to "peripheral issues." Wherever the search leads us, it must begin with our expectations and needs from the figure behind the lectern.

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# Children's Special Services— Care Coordination Project

JUDITH M. WOMACK, R.N.

The Children's Special Services (CSS) care coordination project of the Tennessee Department of Health began statewide in July 1990 as a means of addressing needs not met historically by the medical provisions of the CSS program. A primary focus of these activities is to assure community-based, family-centered care for the families served. While most of the children served by the program receive much of their medical care outside of their local community, there are a number of other needs the family may have that could be met locally with some assistance. The elements of family-centered care include:

- Realization that the family is the one constant source of support in the child's life.
- Parent/professional collaboration.
- Information sharing with the family.
- Recognition of individual family strengths.
- Encouragement of family support activities, and
- Assurance that the health care system is flexible and in tune with family needs.

Care coordination is a set of interrelated activities under which referral to, and coordinating and monitoring of, appropriate services for an individual rests with a specific person within the health department. The purposes of care coordination services for handicapped and chronically ill children are to develop liaisons with medical providers and other community agencies, to enable the family to obtain needed services as close to home as possible, to serve as an advocate for the disabled child and his family, and to enable the family to become their own advocate. Care coordination is not the provision of medical care, but rather it enhances medical care by providing integration of nonmedical services, such as psychosocial and educational activities, with continuing medical care.

Each region of the state is staffed with social workers and nurses to provide care coordination services for children on the CSS program. The care coordinators are based in county health departments but receive technical supervision from the regional CSS staff

with either an experienced registered nurse or a master's level social worker providing immediate supervision.

Activities of the care coordinators include an initial home visit within 30 to 60 days of the patient's application to the CSS program, a family assessment, and development of a care plan. The care plan is developed in conjunction with the family, the regional medical team, the child's medical home, and any specialists providing care to the child. Care coordinators are responsible for follow-up of all medical appointments as well as assisting the family in gaining access to related services such as food stamps, Medicaid, or social services identified as needed in the care plan. They are also available to assist school teachers and other agencies in the community in determining and delivering appropriate care for the child. Throughout the child's enrollment in care coordination, other home visits will be made as needed.

Perhaps the most important role of the care coordinator is as an advocate for the child and his family and as a source of emotional support for them. The care coordinator serves as the one consistent link among all the agencies and professionals providing services by communicating a global picture of the patient's and parents' needs to other individuals or agencies involved in meeting them.

The primary goal is to empower the patient and family to be an effective manager of their own service needs. An important step in achieving this goal is to provide key information to parents regarding their child's handicapping conditions, parenting, or other issues that will enable them to identify problems and access services. Information needed by the families of special needs children includes topics common to all patients, as well as those that are individualized.

All children enrolled in the CSS program are evaluated for care coordination services. When the care coordinator, the family, and the medical team believe these services are no longer needed, the case is closed to care coordination but will remain open for medical services. Specific information about the program may be obtained by calling the regional CSS clinic or your local health department.

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From the Tennessee Department of Health, Nashville. Ms. Womack is director of child health for the TDH Maternal and Child Health Section.

## **Patient Relations Guidelines: Keeping Your Schedule Running Smoothly To Minimize the Waiting Game**

ROBERT BOWERS, M.D., *Chairman*  
TMA Communications and Public Service Committee

It probably comes as no surprise that our research shows that patients *hate* to spend a lot of time waiting in a reception area. As part of our Community Awareness, Resource, and Education (CARE) program, the Tennessee Medical Association wants to help you improve your relationships with your patients, and that includes helping you cut down on the time they spend in your waiting room.

Following are some scheduling tips for you to consider implementing in your office. Some may already be part of your office routine, others may be new ideas. They were gathered through informal focus groups and research with physician offices, and were used with our Mission: Possible program. There's no magic formula for minimizing patients' wait, just some tips that other doctors' offices find work for them.

- Physicians should keep their staffs updated on how their schedules are running. Let your staff members know if something occurs so they can adjust and alert the patients in the waiting room and, if possible, the ones scheduled for later in the day.

- When possible, call the scheduled patients to let them know ahead of time if the doctor is running behind schedule. Patients can then plan to leave later or bring something to occupy their time. This demonstrates your concern for *their* busy schedules.

- If patients need to reschedule, try to get them an appointment for the next day or within that week. That demonstrates you want them to return and are aware of their needs. Remember, they might go elsewhere.

- Get the patient in to see another physician if possible. If the scheduled physician is tied up or running late, offer the patient a chance to see another physician if one is available.

- If a patient has been kept waiting so long that he

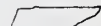
has to leave before being seen, apologize. A letter of apology, especially one handwritten by the physician, will help make up for the inconvenience. A discount on the next visit would be even better.

- If patients know you're willing to spend extra time answering *their* questions, they'll be more understanding if you're running behind schedule. More than likely, they'll realize you were busy answering someone else's questions. As much as patients hate to wait, they also hate to be rushed. It's a fine line, but they like to know you'd be willing to spend a little extra time with them if they need you. Let them know in your initial meeting this is your policy and they'll be more gracious about waiting.

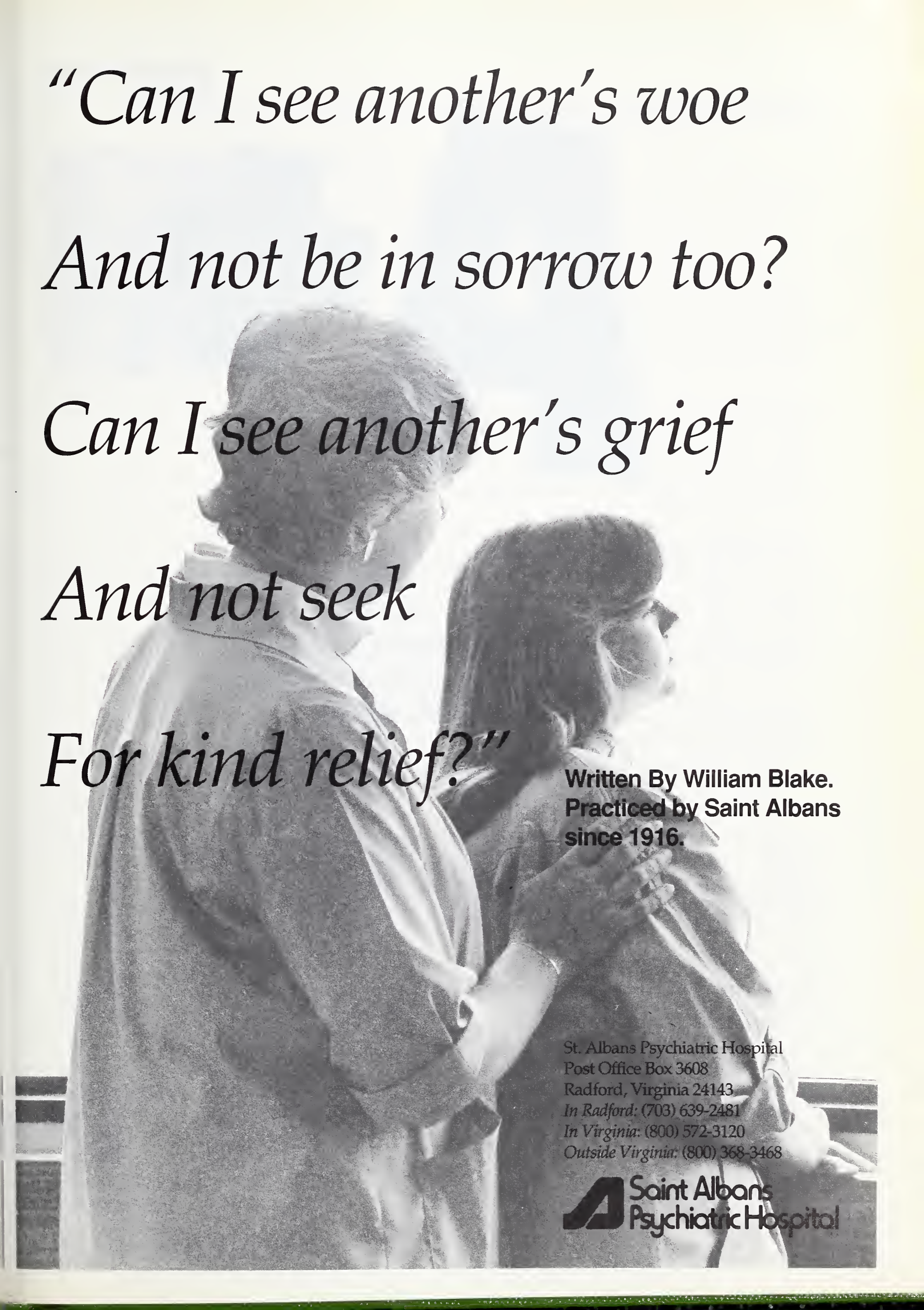
- Some physicians suggest their patients call to check on the schedule before leaving for an appointment. Most patients won't mind going to a little trouble if it means keeping their own schedules in line.

- If the unavoidable happens and you do run routinely behind, consider offering beepers to your patients. If your office is near a shopping center or has a coffee shop in the building, your patients can get something else done with the time they would have spent waiting. And a few minutes before you're ready for them, beep them so they can return to the office.

- Use the two magic words. If you do run behind, the words "I'm sorry" can go incredibly far in dissolving a patient's frustration at having to wait, especially if the words come from both the registration staff and the physician. They show the physician and staff recognize how valuable time is to the patient.

Please share with us any helpful information that your office uses when scheduling your patients. The TMA is here to serve you and, in turn, help you establish better relationships with your patients. 





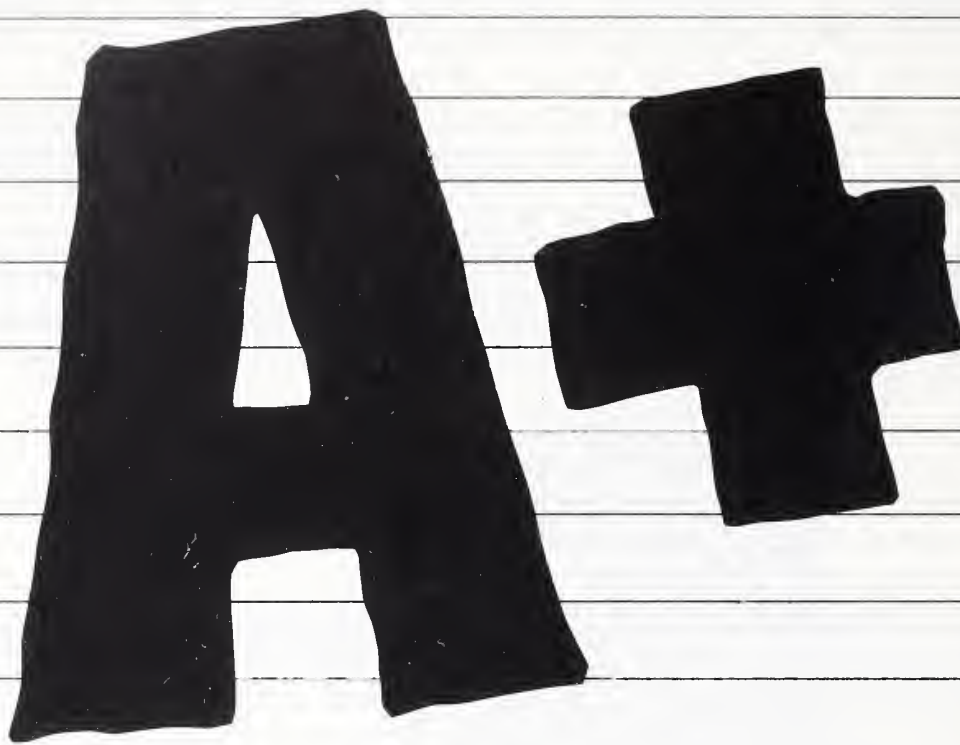
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And not be in sorrow too?  
Can I see another's grief  
And not seek  
For kind relief?"*

Written By William Blake.  
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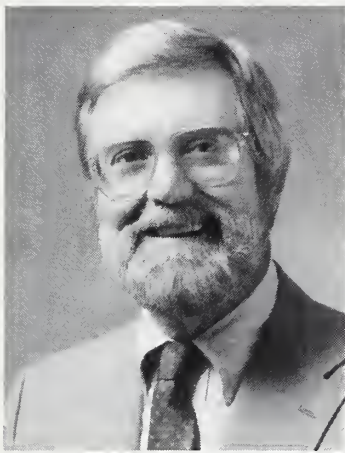
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HOWARD L. SALYER

## RBRVS

As these words are being written, the cold November winds warn that winter, and the New Year, will soon be upon us. January 1, 1992 is of particular importance to physicians, marking the implementation of the Resource Based Relative Value Scale (RBRVS), the most significant issue facing medicine since the inception of the Medicare program. The November winds also find medicine still engaged in its most intense political battle in recent memory.

The engagement began with HCFA's June 5 publication of Medicare payment reform rules, which reduced the monetary Conversion Factor (CF) used to calculate payment levels under the RBRVS by some 16%. While a number of other "reforms" continue to be troubling, AMA and the federation focused on restoring the cuts in the CF—because of their magnitude and because they affect all of medicine.

The initial strategy was to seek an administrative solution, by pressuring HCFA directly and through Congress. TMA has been an integral part of this effort beginning with its annual Washington, DC visit by key contact physicians in June. TMA has written to HCFA and to the congressional delegation. A special four-page RBRVS alert was mailed to all TMA members urging them to contact HCFA and their congressman and senators. This resulted in an unprecedented volume of mail to our congressional delegation, 100% of which contacted HCFA in support of restoring the CF cuts.

HCFA, the recipient of a record 100,000 (overwhelmingly negative) comments, has been under tremendous pressure. Over 80% of Congress urged HCFA to fully fund the CF. As a result, HCFA agreed to restore about 10% of the proposed reductions. HCFA remained intransigent, however, over the issue of a "behavioral offset." This assumption that physicians will increase the volume of services to make up for lost income due to reduced payment level reduced the CF by about 6.5%.

HCFA's insistence on a behavioral offset resulted in a change in tactics for medicine from an administrative to a legislative solution. Last month, a cosponsorship drive was launched on behalf of H.R. 3070 by Stark, a bill designed to restore the cuts in the CF. At present, it has 291 cosponsors. A similar bill, S. 1810, was introduced by Senator Rockefeller and 32 of his colleagues. TMA remains at the forefront of this push.

After weeks of stonewalling, HCFA released its final rules on November 15. While this voluminous document will take additional time to analyze, it appears that the final rule provides a 13.2% increase (including technical adjustments) over the June 5 CF. Preliminary analysis indicates the new CF, with the proposed 1992 update, will have increased from \$26.87 to \$31.00.

After a thorough study of these regulations, AMA and the federation will evaluate legislative options. These bills will remain as vehicles in 1992 to make adjustments to various Medicare payment reform problems. The fight is far from over.

*Howard L. Salyer M.D.*

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JANUARY, 1992

## editorials

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### An' a Happy Li'l Ol' New Year To You, Too

Here it is time for me to wish you a happy one, and it isn't even Thanksgiving yet. That's even harder than trying to do it January 1 with a hangover—and maybe more hypocritical, too. After all, it's hard enough to see what's upcoming even after having had a peek into it without having to do it two months in advance. Chances are there will be something to

be happy about, but we don't know that even from moment to moment. But I guess I can still wish it for both of us (or for all, as the case may be). It is, after all, the thought that counts—or so they tell me. A rather standard jocular response to "Good Morning" is, "What's good about it?" Such a response assumes that the greeting is an observation, when in fact it is a wish for "a good morning to you." I suppose the best answer to, "What's good about it?" is that it's better by a whole lot than the alternative, as my brother was quick to point out to me when I was complaining about having turned 65.

I have sometimes, on previous like occasions, offered what I thought to be words of wisdom, or made some witty and even urbane (again, I thought) prognostications. This time I have neither. I wasn't even of a mind to write a New Year's editorial at all this year until I was importuned, and, well, sort of coerced into it. (Not really, since the editor cannot be coerced; he can be importuned, even shamed, though. I was.)

I just this morning sat through a quarterly 7 AM meeting of the Laboratory Department in the hospital where I work. It was advertised as a breakfast meeting, but the breakfast (so-designated) consisted of bran muffins, bananas, apples, and coffee—not even a respectable continental breakfast. (Fortunately, I've been there before, though the fare has never been quite that meager, and so I had already had a little something to tide me over.) I was beset and finally inundated with reports that must have absorbed the major portion of the time of some of our best people. From QA came a report by one of the best nurses ever to grace the floors of this hospital; she has not seen a patient now for five years. Then came reports from some of our own better techs, who spend a major part of their time adding to the deforestation project of OSHA and TOSHA. All this in the face of serious shortages of qualified nurses and technical personnel.

Next I heard a report of the architect of our new hospital. He spoke of how much work-space is lost making certain that every nook and cranny of public buildings is readily and easily accessible to every mobile individual, no matter how handicapped, because if it is not, anyone at all can, and just might, walk (or roll) in off the street and up and sue the hospital in federal court.

It would be bad enough if all we had to do was listen to all that, but it is also required that every one of us participate, as well. That is no way to start a morning, and it did not put me in a jolly mood—not one that would get me to considering happy anything, though if I had thought about it I would have



grasped assiduously at that straw. I have not yet set a date for my retirement (or had one set for me), but some days it does seem closer than others.

So, despite it all, I wish you all a Happy New Year, and in so doing satisfy the requirements of my keeper—uh—managing editor. If after my lugubrious rendition you can find it in you, wish me, and each other, one, too.

J.B.T.

## On the Other End...

Question: What is a cigarette? Answer: A cigarette is a paper tube with fire on one end and a fool on the other. The joke's an old one—it was going around even when it was fashionable to smoke, and most folks thought smoking harmless—only untidy. This piece, though, is not about smoking, but about something that can be even more dangerous than smoking to the health of selected individuals.

In the *Wall Street Journal* the other day appeared an account of death due to faulty aortic valves. Now, people die all the time from having faulty aortic valves—their own. Death in this case, though, was due to having aortic valves that were made faulty. They were prosthetic aortic valves made by Pfizer, Inc. and they were defective because one of the wire struts holding in place the disk that controls the flow of blood through the valve broke, allowing the disk to float free and not close. The struts broke because they were improperly welded. Of the approximately 86,000 such valves implanted in patients, nearly 450 have broken, accounting for nearly 300 deaths. Because such things sometimes just happen, even despite all proper precautions, critical parts of whatever kind are thoroughly inspected for flaws, or at least such is the plan. Each of these particular aortic valves was inspected, the defective ones were duly rejected, and were subsequently repaired. At least, they were certified as having been repaired. It seems, though, that not all of them were: the certification was in some instances spurious, and people died as a result.

What makes this whole episode particularly distressing is that it appears not to have been accidental. A "phantom welder" who worked for the Pfizer subsidiary that makes the valves was reported to have rewelded 1,900 valves, when in fact that worker had left the company before the valves were reworked; more than that, when he did work there he never welded valves. Those valves were certified as having been rewelded when they never were, were repack-

aged, and sold as perfect valves. Though reasons for this remain unclear, meeting production quotas appears to have played a significant part. It is the same sort of mental lesion that caused *Challenger* to explode, killing its entire crew—a sort of mental myopia, you might say.

Moreover, it is a lesion of society, a condition in which the bottom line obscures all other considerations. During the investigation, which is still in progress, the valve's manufacturers spoke of mitigating factors, such as the valve's superior qualities having saved many more lives than any welding defects could have cost; they appeared totally blinded to the even greater numbers that could have been saved had there been no defects. It turns out that each valve is virtually hand-made, and according to welders can seldom be satisfactorily rewelded, as the necessary increase in heat nearly always destroys the valve; hence the reluctance to reweld, and the pressure to spare the valve and place it on the market. Many of the welders were young Mexicans or Vietnamese, often with virtually no command of English. One whose name had been used as having rewelded valves had never welded at all, but was a polisher instead. No one, he said, ever questioned the policy, though he thought it "strange."

Education is at least a part of the solution, and by that I do not mean a better command of the English language, though that would unquestionably help. Nor do I mean training to ensure more technical proficiency, though that is important, too. What I mean is imparting to every person engaged in the valve's manufacture a sense of responsibility to the patient in whose body the valve will ultimately find its proper resting place.

Education of untutored aliens, though, is not alone the answer, and may in fact be only a minor correction. The deficiency lies deeper, and the responsibility for it rests upon heads at a higher level—heads that though fully informed about responsibility and consequences, even so guide the hands of their subordinates into irresponsible paths. It is a matter encompassing a variety of parameters, depending on the personal values of the individual, but the words that come most forcefully to mind are ethics and morals.

Deliberate fraudulent marketing is not an isolated phenomenon confined to the manufacturers of aortic valves, however, or of anything else, for that matter. Great pains are taken with embryo doctors of medicine to impress upon them that the aortic valves they will one day implant will become a part of a patient—a real person—or that the urine one is tempted to sink-test in the wee hours of the morning

will be used to determine the proper treatment of that patient's diabetes. We try from the first to inculcate those values into our laboratory technicians in training. Without those values, patients are dead, and when patients die from dereliction, so does medicine, bit by bit.

On the other end of every medical procedure or device is a living, breathing, feeling patient. It is the primary responsibility of every single individual who comes in contact with that patient, either directly or indirectly, to keep him that way. It is also the responsibility of every one of us to correct mental myopia wherever we find it. Unfortunately for the patients of the world, not to mention the world generally, the numbers of those afflicted with the disease are far more than a few. Mental myopia is ubiquitous. It comes from eyestrain from watching the bottom line too closely. What's more, it's "catching." We therefore need also to see to ourselves.

J.B.T.



*John "Jack" Adams Jr., age 77. Died November 8, 1991. Graduate of Vanderbilt University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.*

*George Marshall Cannon, age 80. Died October 9, 1991. Graduate of University of Tennessee College of Medicine. Member of Chattanooga-Hamilton County Medical Society.*

*Homer Campbell Ogle, age 69. Died October 10, 1991. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.*

*Alvin Jonah Summar, age 56. Died October 12, 1991. Graduate of University of Tennessee College of Medicine. Member of Consolidated Medical Assembly of West Tennessee.*



*John A. Reaves Jr., M.D., Dyersburg, has been named a Fellow of the American College of Radiology.*

*Larimore Warren, M.D., Lebanon, has been named a Fellow of the American College of Surgeons.*

## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during October 1991. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1.

*Thaddeus H. Ferrell, M.D., Memphis*  
*Christopher W. Fletcher, M.D., Nashville*  
*Richard E. Hopper, M.D., Chattanooga*  
*Charles I. Huddleston, M.D., Knoxville*  
*Charles J. Leagus Jr., M.D., Chattanooga*  
*David E. Schultheiss, M.D., Memphis*



The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### BLOUNT COUNTY MEDICAL SOCIETY

*John H. Eason, M.D., Maryville*

### BRADLEY COUNTY MEDICAL SOCIETY

*Nalini K. Damshala, M.D., Cleveland*  
*Steve W. Garst, M.D., Copperhill*

### CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

*Alan Pechacek, M.D., Jackson*

### GILES COUNTY MEDICAL SOCIETY

*Joseph Taylor Bell, M.D., Pulaski*

### MARSHALL COUNTY MEDICAL SOCIETY

*Danny Hays, M.D., Lewisburg*

### MONTGOMERY COUNTY MEDICAL SOCIETY

*Ronald Karl Setzkorn, M.D., Clarksville*

### NORTHWEST TENNESSEE ACADEMY OF MEDICINE

*Anthony Joseph Fava, M.D., Dyersburg*  
*Jeffrey Allen Swetnam, M.D., Dyersburg*

### PUTNAM COUNTY MEDICAL SOCIETY

*Steven G. Flatt, M.D., Cookeville*



**RUTHERFORD COUNTY/STONES RIVER  
ACADEMY OF MEDICINE**

*Dennis Ray Richerson, M.D., Murfreesboro*  
*Kenna Jane Williams, M.D., Murfreesboro*

**SULLIVAN COUNTY MEDICAL SOCIETY**

*John M. Marshall, M.D., Kingsport*

**WILSON COUNTY MEDICAL SOCIETY**

*W. Yvonne Pawlowski, M.D., Lebanon*

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

Feb. 10-12 Aging: The Quality of Life (sponsored by  
Nat'l Inst of Health)—Washington, D.C.

Feb. 12-16

Feb. 17-19

Feb. 20-25

Feb. 29-March 1

March 4-7

March 6-11

March 11-15

March 18-20

March 19-22

National Update on Allergy and Clinical Immunology Conference—Keystone, Colo.  
Cardiopulmonary Rehabilitation Symposium: Status '92—Sheraton World Hotel, Orlando  
American Academy of Orthopaedic Surgeons—Washington, D.C.

Endoscopy Update 1992: The Southern California Society for Gastrointestinal Endoscopy Symposium—Century Plaza Hotel, Los Angeles

Association for Academic Psychiatry—La Mansion Del Rio, San Antonio, Tex.

American Academy of Allergy and Immunology—Marriott, Orlando

American Association of Anatomists—Hilton, New York

American Society for Clinical Pharmacology and Therapeutics—Peabody Hotel, Orlando

Society for Adolescent Medicine—Omni Shoreham, Washington, D.C.

#### STATE

April 8-11

Tennessee Medical Association, 157th Annual Meeting—Opryland Hotel, Nashville

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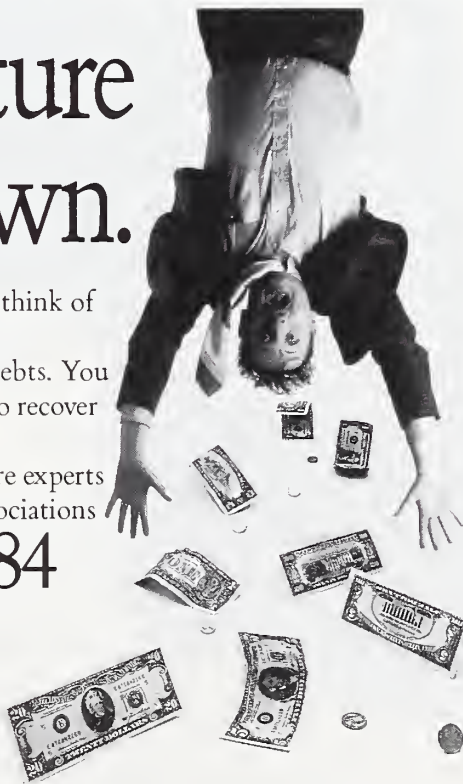
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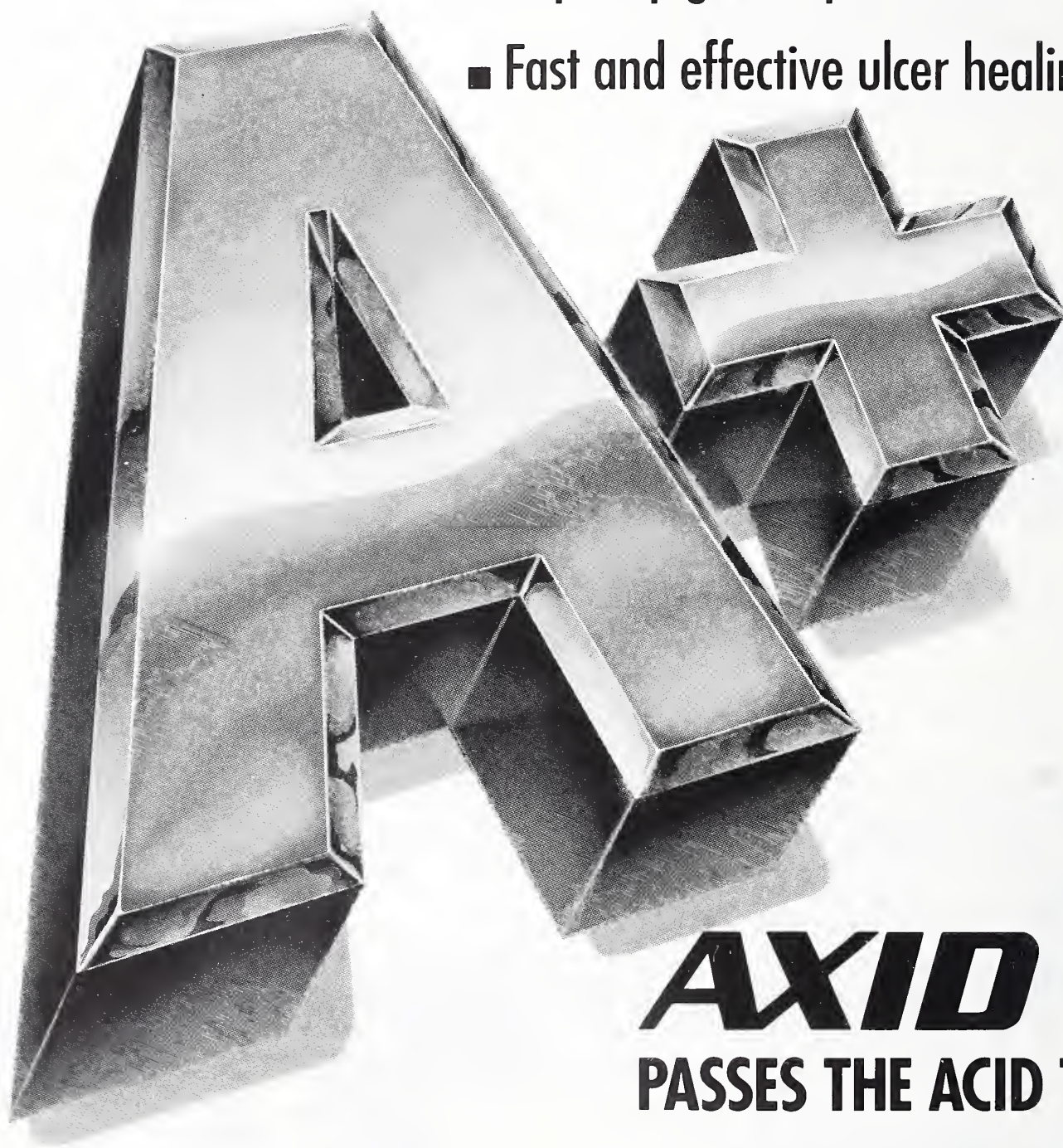


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See adjacent page for references and brief summary  
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**Brief Summary:** Consult the package insert for complete prescribing information.  
**Indications and Usage:** 1. *Active duodenal ulcer*—for up to 8 weeks of treatment. Most patients heal within 4 weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than 1 year are not known.

**Contraindications:** Known hypersensitivity to the drug. Because cross sensitivity in this class of compounds has been observed, H<sub>2</sub>-receptor antagonists, including Axid, should not be administered to patients with a history of hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory tests**—False-positive tests for urobilinogen with Multistix\* may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chloridazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A 2-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a 2-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a 2-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects**—*Pregnancy Category C*—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belled rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in 1 fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in 1 fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events were due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to 3 times the upper limit of normal, however, did not significantly differ from that in placebo patients. All abnormalities were reversible after discontinuation of Axid. Since market introduction, hepatitis and jaundice have been reported. Rare cases of cholestatic or mixed hepatocellular and cholestatic injury with jaundice have been reported with reversal of the abnormalities after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in 2 individuals administered Axid and in 3 untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis does not substantially increase clearance of nizatidine due to its large volume of distribution.

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### References

1. Data on file, Lilly Research Laboratories.
2. *Scand J Gastroenterol.* 1987;22(suppl 136):61-70.
3. *Scand J Gastroenterol.* 1987;22(suppl 136):47-55.
4. *Am J Gastroenterol.* 1989;84:769-774.

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Additional information available to the profession on request.



**Eli Lilly and Company**  
Indianapolis, Indiana  
46285

# Help for Impaired Physicians

Through its Committee on Impaired Physicians, the Tennessee Medical Association helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

## HELP US TO HELP

Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.

# Highlights of the TMA Board of Trustees Meeting

October 13, 1991

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular fourth quarter meeting in Nashville, October 13, 1991.

## THE BOARD:

<b>Subcommittee for Focused CME</b>	Received a report on the establishment of a Clinical Skills Enhancement Subcommittee of the CME Committee.
<b>Membership Committee</b>	Received and approved recommendations for eight physician members of the newly established Membership Committee.
<b>Sports Medicine Committee</b>	Appointed Drs. M. Craig Ferrell, Franklin, Blair D. Erb, Jackson, and Michael H. Hartsell, Greeneville, to the Sports Medicine Committee.
<b>Communications and Public Service</b>	Received an update on the public service ads being broadcast on the Tennessee Radio Network and the newly released CARE program video.
<b>HIV Infection and AIDS</b>	Adopted an 11-point policy recommendation on HIV from the Committee on HIV Infection and AIDS.
<b>Continuing Medical Education</b>	Received a report on plans for the TMA-Tennessee Hospital Association cosponsored CME Conference, scheduled for Dec. 4-5, 1991 in Nashville.
<b>Tennessee Medicare Access Program</b>	Approved recommendations of the TMAP Committee to scale back TMAP due to state budget cutbacks and to maintain those physicians and patients who are already in the program.
<b>Mid-South Foundation for Medical Care</b>	Decided to request the state's PRO to inform physicians being reviewed, when action is taken, of their reviewer's credentials.
<b>Medicaid Drug Utilization Review</b>	Received a report on federal requirements effective Jan. 1, 1992 for state Medicaid programs to implement both prospective and retrospective Drug Utilization Review (DRU).
<b>Peer Review Guidebook</b>	Adopted several final procedural details to complete TMA's Peer Review Guidebook.
<b>Consortium on Patient Self-Determination</b>	Approved TMA's formal involvement in the Tennessee Consortium on Patient Self-Determination. The consortium was organized to develop a manual for compliance to the Patient Self-Determination Act.
<b>State Appointments</b>	Agreed to renominate Dr. Lewis F. Cosby, Johnson City, to the Crippled Children's Advisory Committee.  Agreed to nominate Dr. James N. Etteldorf, Memphis, to the Poison Control Network.

**TENNESSEE MEDICAL ASSOCIATION**

**157TH ANNUAL MEETING**

**April 8-11, 1992**

**Opryland Hotel, Nashville**



# IMPACT Members—1991

As Chairman of the Board of IMPACT (Independent Medicine's Political Action Committee—Tennessee), I am pleased to present the following list of IMPACT members for 1991 as of November 18. Over 1,200 TMA members have recognized the importance of united participation in the political process by contributing to IMPACT this year. This represents approximately 20% of the total TMA membership. To those of you whose names are included on the list below, please accept my sincere thanks.

You can be assured that legislators do pay attention to those who help them get elected and stay in office. To the extent that organized medicine is successful in working with the members of the 97th General Assembly, those of

you who are IMPACT contributors will be due a great deal of the credit for that success.

If you do not find your name on this list, our records do not reflect that you were a member of IMPACT for 1991. Memberships are now being accepted for 1992. Annual dues are \$150 for sustaining membership and \$500 for the Governor's Club. TMA's future legislative success depends on our continued participation in the political process. Your contribution will be much appreciated and will be put to good use.

David Barnes, M.D.  
Chairman  
IMPACT Board of Directors

## GOVERNOR'S CLUB MEMBERS

The individuals listed below elected in 1991 to go above and beyond the call of duty in their support of IMPACT and the political action efforts of Tennessee medicine. They are the 1991 members of the "Governor's Club," which requires a \$500 annual commitment to IMPACT. In this list you will find many members of the TMA Board of Trustees and the Committee on Legislation. These leaders of your Association know firsthand the stakes involved in our political advocacy efforts and the large role IMPACT plays in maintaining the independence of our profession. To them go our special thanks for a job well done.

ALLEN, CHAS EDWARD  
AMONETTE, REX ALLEN  
AVERY, JAMES KELLEY  
AVERY, ROBERT BRUCE  
BAILEY, ALLAN H  
BALLINGTON, KAREN LOUISE  
BARRON, FREDDIE T  
BLACK, WILLIAM D  
BOOKOUT, MARK WILLIAM  
BRYANT, JOHN FRANK  
BURKHART, JOHN MCLAIN  
CHESNEY, JOHN TUCKER  
CROWDER, VIRGIL HOLT JR  
CRUTCHFIELD, JAMES DONALD  
CUSHMAN, ARTHUR ROBT  
EASON, HAMEL BOWEN  
EDMONSON, ALLEN S

EVINS, STARLING CLAUDE  
GERKIN, DAVID GEORGE  
GRIGSBY, WM PAUL  
GRONEWALD, W ROBT  
HANES, THOMAS EUGENE  
HIGDON, DENNIS ALAN  
HUDDLESTON, CHAS IRVING  
HUMPHREY, WM MERRITT  
JAMESON, CHET HOUSTON III  
JONES, ALBERT A III  
KING, JAMES D  
KIRKPATRICK, ROBT DEAN  
LATOUR, DANA L  
LYNCH, MICHAEL HARDY  
MCCALLUM, OSCAR M  
NEBLETT, JOHN W  
POWERS, LAURA B

QUARLES, WILL G JR  
RODNEY, WM M  
ROGERS, CARL W  
ROYAL, JAMES RICHARD  
RUEFF, DAVID ANTHONY  
SALYER, HOWARD LEE  
SHAW, JOHN L JR  
SHOEMAKER, KENNETH E  
STANLEY, DAVID GRANVILLE  
THOMISON, JOHN B  
VONGKASEMSIRI, SUNAN  
WALLACE, SIDNEY L  
WESLEY, RALPH E  
WHITE, CHARLES WESLEY  
WOMACK, CHARLES T III  
WOOD, BURGIN HENRY  
WORTHINGTON, W HALL

ACKELL, ADELE B  
ADAMS, LINAS J  
ADAMS, ROBERT L  
ADAMS, WESLEY F  
ADAMS, WM MILTON JR  
ADCOCK, FRANK JOHN III  
ADKINS, ROBT BENTON  
ADKINS, ROYCE TERRELL  
AEBERLY, RICHARD  
AHLER, ALBERT JULIAN  
AIKEN, MARC A  
AL-ABDULLA, ABDUL-SAHIB M  
ALBRITTON, JOHN THOS  
ALEXANDER, CLYDE W JR  
ALEXANDER, CLYDE VINSON  
ALFORD, ROBERT H  
ALFORD, WILLIAM C JR  
ALGEE, WYATT R JR  
ALI, MAYSOON SHOCAIR  
ALI, SUBHI DAWUD

ALLEN, BILLY JASON  
ALLEN, JAMES LESTER  
ALLEN, L DIANNE  
ALLEY, EDMOND LYNN  
ALLISON, JACK R  
AMADOR, JOSE GARCIA JR  
AMBROSE, PAUL SEABROOK  
AMBROSIA, JOHN M  
ANAND, VEENA  
ANAND, VIRENDER  
ANDERSON, ALLEN F  
ANDERSON, KEITH  
APLOWITZ, FREDERICK  
ARCHIE, DAVID S  
ARNOLD, EDWARD STANLEY  
ARNOLD, HENRY GRADY JR  
ARNOLD, IRA L  
ARONOFF, PHILIP MELVIN  
ATKINS, JERRY FRANKLIN  
AUSTIN, JOHN CLAYTON

AVERETT, STEPHEN L  
AVERY, JOEL EUGENE  
AVERY, SHIRLEY BANNISTER  
BACON, STUART PETER  
BAGBY, RICHARD A JR  
BAILEY, JOSEPH C  
BAKER, RICHARD DUDLEY  
BAKER, ROBERT F  
BAKER, THURMAN DEE  
BALES, DONALD W  
BALLARD, THOS K  
BANG, HOI JINE  
BANKS, SAML LOUIS  
BANKS, WOODRUFF A JR  
BARD, RALPH M  
BARNARD, VAUGHN N JR  
BARNES, DAVID R  
BARNES, JAMES WALTER JR  
BARNES, ROBERT L III

BARNETT, ROBT BURTON  
 BARTEK, ANNE P  
 BASKIN, REED CARL  
 BAYLOSIS, ROBERTO B  
 BEAHM, THOMAS M  
 BEALE, HOBART H  
 BEALS, JOE DUNCAN  
 BEAMER, WILSON C  
 BEAN, MICHAEL WM  
 BEASLEY, JIMMIE L  
 BEATY, JAMES HAROLD JR  
 BEAVER, TERINELL  
 BEAZLEY, WILLIAM COOPER  
 BECHTEL, JACK T JR  
 BECK, LARSON DALE  
 BECKFORD, NEAL STANLEY  
 BECKNER, THOS FOLSOM III  
 BEELER, T CRAIG  
 BELL, JOHN L  
 BELL, JOHN HENRY  
 BESING, JOHN WM  
 BETHURUM, ALVA JEFFERSON  
 BHAT, NARAYANA B  
 BIGBEE, WALLACE BURNS  
 BINDER, SAML S  
 BINGHAM, TERRY M  
 BIRDWELL, JOEL STANLEY  
 BIRKITT, GLENN HUNTER JR  
 BISE, STANLEY L  
 BISHOP, ARCHER W JR  
 BLACKWELL, CAROLYN FISER  
 BLAIK, ZIAD  
 BLANC, PETER  
 BLANK, NANCY  
 BLANTON, FRANK S JR  
 BLANTON, MARVIN A III  
 BLEDSOE, ROBERT E JR  
 BLOCK, CLEMENT H JR  
 BLYTHE, JOS ALFRED III  
 BOAZ, LONNIE R III  
 BOERNER, JAMES L  
 BOLIN, MARION G  
 BOLTON, TRAVIS LEON  
 BONE, GEORGE  
 BOOHER, ROBERT W  
 BOOKOUT, J MICHAEL  
 BOONE, HOWARD A  
 BOOTH, GLENN H JR  
 BOREL, TERRY C  
 BORN, MARK L  
 BORTHWICK, THOMAS R  
 BOURLAND, ROBT LEON JR  
 BOURLAND, WM LANDESS  
 BOWERS, ROBT EUGENE  
 BOWIE, RICHARD R  
 BOXELL, JOHN FREDERICK  
 BOYD, ALLEN STREET JR  
 BOZEMAN, CHARLES H II  
 BRABSON, LEONARD ALLISON  
 BRACKETT, WM DAVID  
 BRACKIN, HENRY B JR  
 BRADLEY, DONALD HUGHES  
 BRADSHAW, JAMES C JR  
 BRAREN, H VICTOR  
 BRATTON, CHRIS H  
 BRATTON, EDGAR K  
 BRESSMAN, PHILLIP L  
 BREWER, RANDALL J  
 BRICE, CHARLES TERRY  
 BRIMI, JOHN BENJ  
 BROADSTONE, PAUL A  
 BROCK, HOWARD THOS JR  
 BRONSTEIN, MAURY W  
 BROWN, GERON JR  
 BROWNE, HARRY G  
 BRUEGGEMAN, MICHAEL  
 BRYAN, JOHN MILTON  
 BRYANT, MAX VINCENT  
 BUCHANAN, RICHARD DURR  
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BUCKLEY, MADISON H JR  
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 BURKHART, PATRICK H  
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 BURNS, E BRANTLEY JR  
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 CAMPBELL, WM RUSSELL  
 CANALE, DEE JAMES  
 CANCELLARO, LOUIS A  
 CANNON, JESSE J JR  
 CAREY, JACK WILLARD JR  
 CARR, HENRY AUSTIN  
 CARRUTH, CYNTHIA  
 CARRUTH, LARRY  
 CARTER, JAMES ROLAND  
 CARTER, OSCAR WILLIS  
 CARTER, RICHARD S  
 CASEY, GARY QUILLEN  
 CASEY, ROBERT REID  
 CASSELL, NORMAN M  
 CATANESE, MARLENE ANN  
 CATE, RONALD C  
 CATTAN, EDWARD LEROY JR  
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 CHAMBERS, JILL F  
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 CHEIJ, ABRAHAM PACHA  
 CHOBANIAN, SARKIS J  
 CHRISTOFERSEN, MARK F  
 CLARK, MALCOLM E  
 CLARK, MARC LEWIS  
 CLARK, ROBT L  
 CLARK, S KATHLEEN  
 CLARY, THOMAS L  
 CLAYTON, THOMAS EDWARD  
 CLEMENTS, JOEL BENJ  
 CLEMONS, DONALD E  
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 CLINE, RICHARD  
 COBB, R MICHAEL  
 COBBLE, DOUGLAS CATRON  
 COBLE, ROBERT V  
 COCHRAN, ROBT TAYLOR  
 COGGESHALL, JACK W  
 COHEN, THOS LEONARD  
 COLE, CHAS PITTMAN  
 COLE, FRANCIS HAMMOND  
 COLEMAN, RONALD S  
 COLES, JOHN H III  
 COLLIER, ROBT HOYAL JR  
 COLLINS, DAVID NEWTON  
 COMAS, FRANK VILANOVA  
 CONN, ERIC HADLEY  
 CONRAD, JAMES FRANCIS  
 CONWAY, JOHN PATRICK  
 CONWAY, THOMAS W  
 COOGAN, JOAN C  
 COOGAN, PHILIP S  
 COONCE, DANIEL F  
 COOPER, ROBERT S  
 CORBIN, CHARLES JR  
 COREY, DAVID ANTHONY  
 COUCH, BILLY LANIER  
 COUDEN, VINCENT ROBT

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 COWAN, JOHN DAVID  
 COWDEN, DAVID ANTHONY  
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 COX, LARRY H  
 COX, MALCOLM A  
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 COX, SUE CLARKE  
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 CRAWFORD, WALTER MORGAN JR  
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 DODD, DAVID J  
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EDWARDS, WM H  
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ELAM, MORRIS GREG  
ELKINS, LARRY H  
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ELLIS, JAMES LEE JR  
ELLIS, JOHN CLYDE  
ELLIS, THOMAS W  
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EMERSON, EDWIN BOYETTE  
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ESTES, TERRELL C  
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EVANS, SAMUEL D  
EVANS, THOMAS S  
EZELL, ROY CLAY  
  
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FANCHER, WILLIAM H  
FANNING, DAVID  
FAQUIN, CORNELL CHAS  
FARDON, DAVID FAVREAU  
FARRIS, RICHARD KENT  
FAULKNER, CHAS TAYLOR  
FAUST, LARRY M  
FEILD, JAMES RODNEY  
FEINBERG, EDWARD B  
FELTS, STEPHEN KAREY  
FEMAN, STEPHEN S  
FERGUSON, JERE W  
FERNANDEZ-CRUZ, PAZ A  
FERRELL, M CRAIG  
FINCHER, JOHN A JR  
FINKE, FREDERICK LEROY  
FISHER, DANIEL FRANKLIN  
FISHER, JACK  
FITTS, JAMES MORGAN JR  
FLEET, WILLIAM F JR  
FLEMING, JAMES CHRISTIAN  
FLICKINGER, TED LAWRENCE  
FLOHR, ROBERT STEPHEN  
FORD, AUGUSTUS C  
FORD, DENNIS CLIFFORD  
FORD, DIANNE J  
FORONDA, ARMANDO CABOT  
FOSTER, LARRY J  
FOSTER, NELSON RAY  
FRANCIS, ROBERT STANLEY  
FRANCISCO, JERRY THOS  
FRANK, STUART AMES  
FRANKLIN, JOHN DAVID  
FREEMAN, COY  
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FREEMAN, JERRY RICHARD  
FREEMAN, MARK PEARCE  
FREEMON, DAVID NOBLE  
FRENCHMAN, KHUSHRU H  
FRIEDMAN, HARRY  
FROST, CHAS LESTER  
FRY, MELLON ALMA JR  
FRYE, AUGUSTUS H JR  
FULK, CHARLES S  
FURLOW, WILLIAM LOOMIS  
FUTRELL, DANNY W  
  
GAITHER, DOUGLAS HAMILTON  
GALYON, JAMES THEODORE  
GAMMILL, STEPHEN LANE  
GANTT, PICKENS A  
GARBARINO, A J JR  
GARBER, BRIAN H  
GARDNER, BENNY A  
GARDNER, LAWRENCE G JR  
GARMAN, RICHARD W  
GARRETT, HARVEY E JR

GARRIOTT, DAVID KENT  
GASTINEAU, JERRY LEE  
GASTON, ROBT B  
GAVIGAN, WM MITCHEL  
GEFTER, JEFFREY W  
GEFTER, MONICA AVIVA  
GELFAND, MICHAEL S  
GEORGE, WILBURN E  
GETTELFINGER, THOMAS C  
GIBSON, CARL EUGENE  
GIBSON, JAMES W JR  
GILBERTSON, ROBT B  
GILES, JAMES W  
GILLESPIE, RICHARD ALLEN  
GINN, H EARL  
GITSCHLAG, GARY N  
GLASCOCK, FRANK B  
GLASSCOCK, MICHAEL E  
GLASSELL, EDWIN C  
GLUCK, FRANCIS W JR  
GODWIN, CHAS WAYNE  
GOODMAN, CHAS EDWARD JR  
GOOGE, JOSEPH M JR  
GORMAN, PAUL W  
GOULD, HOWARD F  
GOULDING, CLARENCE E JR  
GRAFTON, EDWIN G JR  
GRAHAM, RANDAL O  
GRAVES, HERSCHEL A JR  
GRAY, MCDONALD  
GREEN, JAMES DONALD  
GREEN, MARK E  
GREEN, PAUL A JR  
GREENE, JAMES ALLEN  
GREENE, RICHARD S  
GREER, PATRICK RODDY  
GREER, WILLIAM C  
GREMILLION, DANIEL E JR  
GRIFFIN, WILLIAM C  
GRIGSBY, DAVID A  
GRIME, HARVEY H  
GRINDE, STEPHEN E  
GRISE, JERRY WADE  
GRISOLANO, JAMES MARTIN  
GROSSMAN, ALLAN M  
GULLETT, DAVID LAIRD  
GURLEY, LARRY D  
GUTCH, WM JOHN III  
GUTOW, RICHARD FINEMAN  
GWALTNEY, DAVID NELSON  
GYURIK, CATHERINE E  
  
HAASE, THEODORE F JR  
HACKWORTH, JOHN BIBLE JR  
HAGAN, KEVIN F  
HAGENAU, CURTIS JAMES  
HAHN, JAN T  
HALEY, TONY O'NEAL  
HALFORD, HOLLIS H JR  
HALL, DANNY  
HALL, HUGH DAVID  
HALL, MICHAEL STANLEY  
HAMPTON, BERT ALLAN  
HANNA, WAHID T  
HARDIN, ROBT ALLEN  
HAREN, VINCENT JAMES  
HARGROVE, R LESLIE  
HARMUTH, CHARLES ROBERT  
HARRELL, THOMAS G  
HARRINGTON, ROBT LEE  
HARRIS, ARTHUR SALE  
HARRIS, BUFORD TERRELL  
HARRIS, DAVID J JR  
HARRIS, MICHAEL A  
HARTMAN, RONALD D  
HARVEY, HATHAWAY K  
HARWELL, WM BEASLEY JR  
HAWKINS, CHAS W  
HAWKINS, RAYMOND JR  
HAWKINS, STEPHEN S  
HAYES, PHILLIP WALTON

HAYNES, DOUGLAS B JR  
HAYS, JAMES WM  
HAYS, ROBT DANL  
HAYS, WILLIAM A  
HAZLEHURST, GEORGE E JR  
HEARD, GEORGE J  
HECHT, JEFFREY S  
HEIM, CRAIG REED  
HELLMANN, ROBERT S JR  
HENDERSON, NORMAN LEPOY  
HENDERSON, REGGIE A  
HENDERSON, ROBERT R  
HENDRICK, JOHN P  
HENRY, JAMES E JR  
HERRING, ROBERT WILLIAM JR  
HERRON, BRUCE EMERSON  
HERRON, CHAS BURKHEAD  
HERTZ, CHARLES S JR  
HESTER, RAY WILLIS  
HICKERSON, WILLIAM L  
HIGGINBOTHAM, THOS WAYNE  
HIGGINS, THOMAS G  
HIGGS, BOBBY CLARK  
HILL, HUBERT CAWOOD  
HILL, ROBERT PAUL  
HILL, ROBT S  
HILLARD, IRVING RINGO  
HILLMAN, CHAS HARLAN  
HILTON, JAMES ISAIAH  
HIMMELFARB, ELLIOT HARVEY  
HINES, LEONARD HARVEY  
HINTON, ALICE A  
HIXSON, JACK DOAK  
HOLBROOK, JOHN L  
HOLCOMB, GEORGE W III  
HOLLIDAY, H JOSEPH  
HOLT, HUEY THOS  
HOOD, DEWEY WOODROW  
HOOD, MICHAEL T  
HORNSBY, JERRY  
HOROWITZ, DAVID HARVEY  
HORTON, MARSHALL  
HOSKINS, JOHN C  
HOUSE, BEN FRED  
HOUSTON, MARK CLARENCE  
HOVIS, WM MARVIN  
HOWELL, MARK ALLAN  
HOWSER, JOHN PATTON  
HUA, VIN-PAUL  
HUDGINS, J CARMACK  
HUDSON, LARRY D  
HUDSON, WILLIAM DUDLEY  
HUFF, MAXWELL E  
HUFFMAN, CHARLES D  
HUFFMAN, JOHN DAVID  
HUMMEL, JOHN VERNON  
HUMPHREY, STEPHEN P  
HUMPHREY, TOM NEAL  
HUNT, JOE  
HUNT, NOEL CLARENCE  
HUNTER, THOMAS A  
HURT, JOS EDWARD  
HUTCHERSON, WM POWELL  
HYATT, NORMAN LYLE  
HYDER, NAT EDENS JR  
HYMAN, STEVE A  
  
IGLEHART, BRYAN T  
INGRAM, JOHN JACKSON III  
IVEY, DONATHAN MILES  
IVEY, R DONATHAN  
  
JABBOUR, J T  
JACKSON, JAMES W  
JACKSON, JOHN M JR  
JACKSON, ROBERT LEWIS  
JACKSON, STEPHEN W  
JACOBS, JOHN C JR  
JAGGERS, JOHN S  
JAMES, DABNEY  
JARVIS, S CRAIG

JAYAKODY, FRANK LORENZ  
JEKOT, WILLIAM J  
JEMISON, DAVID MARSHALL  
JENKINS, JON CALVIN  
JERKINS, GERALD RAY  
JERNIGAN, JERRY MARSHALL  
JERNIGAN, JOHN FORREST  
JERNIGAN, THOMAS W  
JOE, PENN QUORK  
JOHN, JAMES THOS JR  
JOHNS, KARLA J  
JOHNS, O TOM  
JOHNSON, CALVIN JOHN  
JOHNSON, DANIEL V  
JOHNSON, ELOIETT  
JOHNSON, FRANK P JR  
JOHNSON, GERALD EUGENE  
JOHNSON, H KENNETH II  
JOHNSON, JAMES GIBB  
JOHNSON, JOHN C  
JOHNSON, LARRY HOLLIDAY  
JOHNSON, ROBT MARSHALL  
JOHNSON, WM FRANK JR  
JOHNSTON, ROBT K  
JOHNSTON, WILLIAM D  
JONES, FRANK EMERSON  
JONES, R LUBY  
JORDAN, CHAS EDWARD III  
JOSOVITZ, MARK

KABBANI, SAM A  
KANDALAFT, VICTORIA A  
KAPLAN, HYMAN M  
KAPLAN, ROBT JOEL  
KAPPA, JEFFREY RAY  
KEANE, WM SHERMAN  
KENNEDY, JAMES S  
KENNEDY, WM ENNIS  
KERLEY, HAROLD EUGENE  
KHATRI, HARESH H  
KIDD, CHARLES E JR  
KIDWELL, E R JR  
KILEDJIAN, VARTKES  
KILLEFFER, JOHN JACOB  
KILROY, ANTHONY WALDO  
KIM, HO KYUN  
KIMBERLIN, G DANNY  
KIMBROUGH, STEPHEN M  
KINCAID, WM RALPH  
KING, A SIDNEY  
KING, DARREL CHAMBERS  
KING, TRUMAN FRANKLIN  
KING, WALTER HUGHEY JR  
KIRBY, CHARLES A  
KIRKLAND, RONALD H  
KLEIN, KARL  
KLIEFOTH, A BERNHARD III  
KNICKERBOCKER, FRED RAY  
KNIGHT, JOSEPH C  
KNOWLING, ROBT EDWARD  
KRAUS, GORDON JEROME  
KRAUSE, RICHARD ALAN  
KRICK, JOSEPH G  
KRUEGER, SYLVIA LYNNE  
KUBOTA, THOMAS T  
KUMAR, A P MAHESH  
KURITA, GEORGE I  
KUYKENDALL, SAM J  
KYGER, KENT  
KYLE, CLYDE A JR

LABRADOR, DANIEL P JR  
LADLEY, HERBERT DEROSS  
LAFONT, DONALD SHARP  
LAING, BRENT D  
LAING, WM GAVIN  
LAMB, JOHN WM  
LAMB, RAY  
LAMBALLE, ADRIAN K  
LANE, DAVID L  
LANE, RICHARD GEOFFREY

LANGFORD, MICHAEL D  
LAPHAM, CRAIG A  
LAPIS, JAMES L  
LARD, JANET KAYE  
LARSON, CHARLES ADRIAN  
LASKY, RICHARD SAML  
LASSITER, LAWRENCE H  
LAW, WILLIAM M SR  
LAWRENCE, HARRY M JR  
LAWRENCE, JEFFREY P  
LAWRENCE, ROY FINCH  
LAWRENCE, THOMAS L  
LAWSON, ELIZABETH ANNE  
LAY, JOHN DANL  
LAZAR, RANDE H  
LAZARUS, STEPHEN M  
LEAVELL, SANDRA REESE  
LEDBETTER, BUFORD B  
LEDBETTER, WILLIAM HENRY  
LEE, ROBT HENRY  
LEFTWICH, RUSSELL B  
LEMINGS, STEPHEN  
LETT, JAMES C  
LEVENTHAL, MARVIN R  
LEVERNIER, JAMES E  
LEVITCH, MELVYN ABRAHAM  
LEWIS, ALLEN DAVID  
LEWIS, DONALD RAY  
LEWIS, MALCOLM R  
LEWIS, RODGER PATRICK  
LEWIS, W MICHAEL  
LEWIS, WILLIAM I  
LIGON, DOUGLAS WISTER  
LIMBACHER, JOHN P  
LINDSAY, JAMES  
LINDSEY, CHARLES HUGH  
LITCH, MELVIN JR  
LITTLE, JAMES P  
LITTLEFIELD, THOMAS R  
LIU, CHUNG-YUEN  
LLOYD, KENNETH MICHAEL  
LOCKE, JOEL R  
LONG, DAVID DALE  
LONG, IRA MORRIS  
LONG, THOMAS E  
LOVEJOY, MORRIS  
LOVEN, KEITH H  
LOWE, REGINALD S JR  
LOWERY, E RAY JR  
LOWRY, FRANK H  
LOWRY, ORLANDA R III  
LUBOW, LAWRENCE D  
LUCKMANN, KENNETH F  
LYMBERIS, MARVIN  
LYNCH, EVERETTE G  
LYNNES, HOWARD M

MACDONALD, R SCOTT  
MACK, JOHN W JR  
MACKLER, DONALD F  
MADDEN, JAMES JOS JR  
MADIGAN, ROBT REGIS  
MAGGART, MICHAEL L  
MAGUIRE, J KIMBRO JR  
MAHAN, BEN BOB  
MANCEBO, GERALD L  
MANDELL, ALAN I  
MANDRELL, JOE THOS  
MANNING, RICHARD O  
MANSON, JAMES EDWARD  
MARCELO, BERNARDINO D  
MARCELO, JOSEFINA Q  
MARCY, JOHN SAML  
MARSH, CLARENCE BRUCE  
MARSIDI, PAUL  
MARTIN, BETSY HARRIS  
MARTIN, DANIEL C  
MARTIN, DANIEL ERNEST  
MARTIN, RAYMOND S III  
MASSINGALE, H LYNN  
MATHES, W T JR

MATTHEWS, JOHN T  
MAULDIN, GREGORY  
MAXWELL, G PATRICK  
MAY, JEFFERY ALAN  
MAYFIELD, RUSSELL W  
MCABEE, WENDELL  
MCADOO, MICHAEL A  
MCALEAVY, JOHN C  
MCAMIS, JOHN CARL  
MCCALL, CHARLES  
MCCONNELL, CONN M  
MCCONNELL, DAVID H  
MCCORMACK, HAROLD ARTHUR  
MCCRAVEY, JOHN WELLS  
MCCULLOUGH, BILLIE S  
MCDONALD, CHARLES D JR  
MCGAHA, SAMUEL W  
MCGEE, JAMES W  
MCGINNIS, THOMAS BRYAN  
MCKAY, ROBERT D  
MCKEE, DAVID EARL  
MCKENZIE, JEROME F  
MCKINNEY, JAMES RAY  
MCKISSICK, WILLIAM R  
MCKNIGHT, DAVID T  
MCKNIGHT, RUSSEL DELBERT  
MCLEAN, GEORGE WALLACE  
MCLEMORE, WAYNE L  
MCMILLIN, RODNEY M  
MCMURRAY, JOHN MARK  
MCMURRY, JOSEPH SEARLE  
MCNEELEY, HOWARD B  
MCNULTY, JOHN STEPHEN  
MCPEAKE, WILLIAM T III  
MCPHERSON, WARREN F  
MERCADO, AVELINO VELASCO  
MERRITT, LAUREN N  
MESSERSCHMIDT, WILLIAM H  
METCALF, DEE LAMAR III  
METCALF, THOMAS H  
METHVIN, RAY ELWIN  
METZGER, WM EDGAR  
MEYER, ALVIN HENRY JR  
MEYERS, ANTHONY L  
MILAM, WILLIAM M  
MILEK, MICHAEL A  
MILLER, ANDREW HERRON  
MILLER, CARTER F JR  
MILLER, FRANK J  
MILLER, JESSE A JR  
MILLER, MICHAEL PETER  
MILLER, MICHAEL M  
MILLER, PHILIP G  
MILLER, WILLIAM O  
MILLIS, JAMES BROWN  
MITCHELL, DOUGLAS PARK  
MITCHELL, FOY B SR  
MITCHELL, HAYS  
MITCHELL, JARLATH J  
MITCHUM, ALBERT JACKSON  
MOFFATT, WILLIAM LEE III  
MOFFETT, STEVEN R  
MOINUDDIN, MOHAMMED  
MOLONY, WILLIAM LAWRENCE  
MONGER, RALPH HORACE JR  
MONTENEGRO, FRANKLIN  
MONTGOMERY, CHAS ALEXANDER  
MONTGOMERY, MARCIA A  
MONTGOMERY, ROBERT N  
MONTGOMERY, TONY JOHNSON  
MOORE, JOHN H III  
MOORE, JOHN T JR  
MOORE, JOHN DAVID JR  
MOORE, KENNETH LYNN  
MOORE, ROBERT SAYLOR  
MORGAN, STEVEN W  
MORGAN, TOMMY E  
MORISY, LEE RICHARD  
MORRIS, WM GOURRIER  
MORRISON, LARRY BURT  
MOSRIE, AZETT JIMMIE



MOSS, JOHN PALMER  
 MOUNGER, EMERSON JAY  
 MULLEN, JESSE G  
 MULLINS, W MICHAEL  
 MUMFORD, MARK S  
 MURPHY, JAMES GARNETT  
 MURPHY, PATRICK J  
 MURRAY, R SMITH  
 MURRAY, ROBERT C JR  
 MURREY, WM HARWELL  
 MUSE, WM SCOTT JR  
 MUTHS, FREDERICK A  
 MYERS, WM STANLEY

NAGLE, LAWRENCE S  
 NATELSON, STEPHEN ELLIS  
 NEAL, GARY W  
 NEFF, BETTY K  
 NEHLAWI, MOHAMMED M  
 NELSON, HENRY S JR  
 NELSON, JEANNE N  
 NELSON, JOHN R JR  
 NELSON, MARK L  
 NEMEC, DEWEY G  
 NERY-MANALO, NORA  
 NESBITT, THOMAS E JR  
 NESBITT, TOM EDWARD  
 NEWTON, NICHOLAS  
 NICHOLS, ROBERT  
 NOE, HORACE NORMAN  
 NOONAN, JAMES ROTHWELL  
 NORMAN, DWIGHT MICHAEL  
 NORRIS, HUNTER WILLINGHAM  
 NORTON, DOUGLAS EDWARD  
 NORWOOD, CHRISTOPHER W  
 NOXON, JEAN K

O'BRIEN, PATRICK  
 O'NEAL, DAVID MEDFORD  
 ODELL, MICHAEL J  
 ODOM, ALAN C  
 OGLE, EVELYN M  
 OGLESBY, JOHN WILLS  
 OLAECHEA, REINALDO A  
 OLDHAM, RICHARD RANDOLPH  
 ORLAND, RICHARD A  
 OUTLAN, JOHN EDWARD  
 OVERFIELD, RONALD EDWIN  
 OVERHOLT, BERGEIN F  
 OVERHOLT, ROBERT MARION  
 OWEN, WM KENDRICK  
 OZAWA, T TED

PACK, RONALD LYNN  
 PAGE, GENE RUFFNER  
 PALMER, ROBERT E IV  
 PAREY, STEPHEN EDWIN  
 PARROTT, JAMES A  
 PASIPANODYA, ALPHONSE  
 PASS, LAWRENCE J  
 PATTERSON, KELLY  
 PATTON, ROBT CARROLL  
 PAYNE, STEVEN D  
 PEARSON, RANDALL E  
 PEARSON, RICHARD MCQUISTON  
 PEAVYHOUSE, JOEL Q  
 PECACHE, CONCHITA T  
 PEDIGO, THURMAN LEE  
 PEDIGO, WILLIAM J  
 PEELER, HARRY LEE  
 PEELER, MOLLY M  
 PENDERGRASS, HENRY P  
 PEREZ, MARTIN ALLEN  
 PERMENTER, WILLIAM D  
 PERRIN, MILLARD FOY  
 PERRY, FRANK A JR  
 PETERS, SCOTT W  
 PETERSON, KEITH D  
 PETRILLA, DIANE L  
 PETROCHKO, NICHOLAS  
 PETTY, ALBERT M  
 PEYTON, RICHARD R

PHILLIPS, BARRY BRENT  
 PHILLIPS, MICHAEL S  
 PIENKOWSKI, MAREK M  
 PIERCE, E HARRIS  
 PIERCE, EDGAR H JR  
 PIERCE, TRUETT H  
 PITCOCK, JAMES ALLISON  
 PLATT, WILLIAM MARSHALL  
 POEHLEIN, RICHARD  
 POLING, RODNEY A  
 POMERANCE, GLENN NOEL  
 PORTER, F RAYMOND  
 PORTERFIELD, JAMES G  
 POSMAN, CLIFFORD L  
 POTDAR, ANILKUMAR S  
 POWELL, JOHN MANLEY  
 PRAKASH, RUDRA  
 PRESUTTI, HENRY J  
 PRICE, JAMES ALFRED JR  
 PRICE, JOHN DUNCAN  
 PRIEST, EDWARD M II  
 PRIETO, LUIS CARLOS JR  
 PRINZ, STEPHEN C  
 PRITCHER, G MARK  
 PRUITT, RONALD E

QUISLING, RICHARD W

RADER, GREGG M  
 RADER, KAREN T  
 RAINS, BOYCE MANRIN III  
 RAJASHEKARAIAH, K M  
 RALSTON, FRED JR  
 RAMER, WARREN CARLTON JR  
 RAULSTON, KENNETH L JR  
 RAY, JONATHAN H  
 RAYNE, FREDERICK S  
 REARDON, PETER  
 REATH, DAVID B  
 REAVES, JOHN ANDREW  
 REDDEN, RUTH ANNE  
 REDDICK, LOVETT P  
 REESE, EUGENE P  
 REEVES, MICHAEL L  
 REGESTER, ROLLAND F JR  
 REID, MICHAEL L  
 RESTA, BART J  
 REYNOLDS, CHARLES W  
 REYNOLDS, JOHN ROBT  
 RHEA, KARL BYINGTON  
 RHEAR, R WAYNE  
 RICH, EARL FREEMAN  
 RICHARDS, BRUCE EARLE  
 RICHARDSON, JAMES W JR  
 RICHMOND, JAMES P JR  
 RICKS, PHILLIP M  
 RIDLEY, ROBERT WENDELL  
 RIEDEL, ROBERT DAVID  
 RIES, WILLIAM RUSSELL  
 RISSLING, DELORIS E  
 RITTENBERRY, ANDREW B JR  
 ROADS, TIMOTHY R  
 ROBERSON, TRAVIS HUBERT  
 ROBERTSON, JAMES BUFORD  
 ROBINETTE, CHARLES L JR  
 ROCHESTER, JOHN CRAWFORD  
 ROJAS, NORBERTO  
 ROSE, RICHARD C III  
 ROSENBLUM, HOWARD H  
 ROUTON, WILLIAM ROBERT  
 ROWE, WM EDWARD  
 RULEMAN, CHESTER ALLAN  
 RUSSELL, WM LEE  
 RUSSO, WM LOUIS  
 RUTHERFORD, RICHARD T  
 RYLANDS, JOHN CRAIG

SACKS, HAROLD SAMUEL  
 SAFLEY, CHAS FRANKLIN JR  
 SALYERS, STEVE G  
 SAMAHA, JOSEPH K  
 SAMPLES, RANDALL GARY

SAMPSON, LOUIS  
 SAMS, JOSIAH B  
 SANDERS, CLARENCE RAMEY  
 SANDERS, DAN SUMNER III  
 SANDERS, HARVEY STANFORD  
 SANNER, ROBERT F  
 SATTERFIELD, WM T JR  
 SAUER, MARK A  
 SAVAGE, H BRYANT  
 SAWYERS, JOHN L  
 SCHLAMP, ALLEN LEE  
 SCHLEIFER, GROVER F III  
 SCHMITS, G MICHAEL  
 SCHNEIDER, RICHARD PAUL  
 SCHOETTLE, TIMOTHY P  
 SCHULTZ, RICHARD L  
 SCOTT, CHAS SEALE  
 SCRUGGS, FENTON LEE  
 SCRUGGS, JERRY L  
 SEALS, JAMES L  
 SEIDEL, TERRY W  
 SEMMER, JOHN R  
 SENDELE, DEBORAH D  
 SENDELE, ROBERT L  
 SETTLE, CHARLES SIDNEY  
 SEWELL, DAVID H  
 SEXTON, RICHARD CARR JR  
 SHAH, JAYRAJ C  
 SHAPIRO, MARVIN LOUIS  
 SHARP, DONALD ALAN  
 SHAW, JAMES WILLIAM  
 SHEA, JOHN JOS JR  
 SHELTON, GEO WASHINGTON  
 SHENOUDA, ADEL NEMR  
 SHERIDAN, WILLIAM F JR  
 SHIVERS, SELBY BRITT  
 SHORE, JAMES WM  
 SHUCK, EDWIN H III  
 SHUCK, EDWIN H JR  
 SHURLEY, WILLIAM R III  
 SIEGEL, BARRY ROSS  
 SIEGEL, MARC N  
 SIKES, J GREGORY  
 SIKES, JAMES C  
 SILER, RITA ANNE  
 SIMMONS, BRYAN PAUL  
 SIMMONS, JOHN D  
 SIMMONS, STEPHEN P  
 SIMONTON, RALPH W JR  
 Siner, JOHN ROBERT  
 SLAUGHTER, FREDERICK D  
 SMELSER, MICHAEL HARDING  
 SMITH, BRUCE A  
 SMITH, C GRAY  
 SMITH, CLYDE E  
 SMITH, JACK CALVIN  
 SMITH, JOE S  
 SMITH, KENNETH DALE  
 SMITH, LANG G  
 SMITH, RICHARD S  
 SMITH, ROBT LLOYD  
 SMITH, ROBT JOS  
 SMITH, SAMUEL A  
 SMITH, STEVEN M  
 SMITH, THOMAS ANDERSON  
 SMITH, WILLIAM DAVID  
 SMITH, WILLIAM N  
 SMUCKLER, ALAN LEE  
 SNYDER, ROBT BRUCE  
 SOBEL, ABRAHAM ISAAC  
 SOIKE, DAVID R  
 SOLOMITO, VINCENT LEE  
 SOMMERVILLE, LEWIS C JR  
 SON, CHOON DUCK  
 SOUDER, BOB TYLER  
 SPADY, MICHAEL  
 SPALDING, ALANSON R  
 SPEARS, WILLIAM KYLE  
 SPENGLER, DAN M  
 SPIOTTA, EUGENE J JR  
 SPIOTTA, EUGENE JOS

SPRAY, PAUL ELLSWORTH  
SRINIVAS, NAVEEN  
ST CLAIR, DAVID SMITH  
STALEY, HOMER LEE  
STALLWORTH, WM PARK  
STANTON, PAUL EUGENE  
STEPHENS, JOSEPH W  
STEPHENS, RAJ K  
STERNBERGH, W CHAS JR  
STEVENS, GEO MILLER III  
STEWART, CHARLES V  
STEWART, WM DAVID  
STIMPSON, CHARLES L  
STOCKTON, DAVID L  
STONE, JAMES PATTERSON  
STONECIPHER, LOWELL F  
STORY, WILLIAM CHARLES  
STRADER, LORENZO D  
STRANGE, GLEN J JR  
STRIPLING, JACK CLEMENTS  
STROUD, MARY E THOMPSON  
STUBBS, HAL SESSION  
STUMB, PAUL RUST  
SULKOWSKI, VIKTOR P  
SUMMITT, ROBERT LAYMAN  
SUNDAHL, C GERALD  
SURBER, JERRY LEE  
SWINDLE, JAMES TYLER  
SYDNOR, ELMER W

TANTIHACHAI, SITHIPOL  
TATE, HARRY T  
TAYLOR, DEAN GATES  
TAYLOR, ROBT CRESTON  
TAYLOR, WM WOOD JR  
TEJWANI, INDURANI A  
TEMPLETON, JOHN WAGGONER  
TEPPER, BERNARD  
TERRY, RICHARD B  
THOMAS, HENRY LEWIS  
THOMAS, JAMES LOUIS  
THOMAS, OSWALD HENRY  
THOMAS, STEVEN MICHAEL  
THOMPSON, BRYAN BROOKS  
THOMPSON, TERRY L  
THOMPSON, THOS REECE  
THOMPSON, WILLIAM CLARK  
THRELKELD, WM CLEAGE  
THUR DE KOOS, PAUL  
THURMAN, GRAFTON H  
THURMAN, STEPHEN S  
TILLMAN, RONALD C  
TITTLE, JOE EVAN  
TOBAN, M MOATAZ  
TOMICHEK, RICHARD C  
TOSH, ROBT H  
TOWNSEND, ARTHUR M III  
TOZER, KENNETH

TRENT, BILLY CARL  
TUBERVILLE, AUDREY WHALEY  
TUCKER, ROBT TAYLOR JR  
TURNER, BRUCE IRWIN  
TURNER, HARRISON D  
TURNER, SHELBY OSCAR

UPCHURCH, D THOMAS

VALENTINE, FRED M JR  
VANDERGRIF, WM LOWELL  
VANDEVENDER, FRANK KARL  
VANHOODYDONK, JOHN E  
VANN, HAROLD FRANCIS  
VARGAS, EUGENIO  
VARNER, C FERRELL JR  
VARNER, JAMES W  
VEGORS, ROBERT A  
VERHEECK, KENNETH  
VERNON, MICHAEL LEE  
VICK, GEORGE W  
VILLENEUVE, VICTOR  
VINCENT, JAMES L  
VINSANT, CHRISTOPHER L  
VINSON, HAROLD WALLACE  
VISER, TIMOTHY ALLEN  
VOCKLES, JOHN THORN

WADE, DWIGHT ROBT JR  
WADE, W BURKE  
WADLINGTON, WM B  
WAHL, ROBT WILHELM  
WALKER, ARTHUR WINFREY  
WALKER, FRANCES CAROLYN  
WALKER, PARKS W JR  
WALL, JAMES WHELAND  
WALLACE, JOE KENNETH  
WALTERS, WILLIAM J  
WARDLAW, LEE LYLE  
WARE, ROBT EDWIN  
WARMBROD, JAMES G JR  
WARNER, JOHN J  
WATKINS, STEVEN L  
WATLINGTON, JOSEPH T  
WATSON, DAVID THEODORE  
WATTS, DAVID REED  
WEBB, JIMMY FRANKLIN  
WEBER, ALVIN JULIAN III  
WEBSTER, THOS MOORE  
WEIR, WILLIAM STRICKLAND  
WELCH, DAVID B  
WELLES, EDWARD HUNTER III  
WELT, ANN GROCE  
WESLEY, RAYMOND  
WEST, JAMES M  
WESTERFIELD, LARRY H  
WESTMORELAND, M WAYNE  
WESTOVER, ROBERT A

WHEELOCK, ARGIL JERRY  
WHITE, JERALD WAYNE  
WHITE, LAMAR ARTHUR  
WHITE, NORMAN EUGENE  
WHITE, WILLIAM OTIS  
WHITEHURST, JAMES H  
WHITMORE, MARK ALLAN  
WHITSON, MICHAEL L  
WIESMAN, H JAMES  
WIKER, SIDNEY ALFRED  
WILBURN, CHARLES D  
WILKENS, CHAS HENRY  
WILLIAMS, BEVERLY D  
WILLIAMS, JENNY LYNN  
WILLIAMS, JOHN O JR  
WILLIAMS, OLIN  
WILLIAMS, RICHARD LARRY  
WILLIAMS, ROBERT HENRY  
WILLIAMS, THOMAS WOLFORD  
WILLIAMS, TIMOTHY MICHAEL  
WILLIAMS, WAYNE PATRICK  
WILLIAMSON, F EARL III  
WILLOUGHBY, JOS LEEPER  
WILSON, EARL K  
WILSON, G DEAN  
WILSON, JAMES MARION  
WILSON, RAYMOND EDWARD  
WILSON, ROBERT JOHN III  
WINSOR, MICHAEL JON  
WINTON, GEORGE B  
WITHERSPOON, FRANK G JR  
WITHERSPOON, JOHN D  
WITT, PETER C  
WITTKE, PAUL EDWARD  
WOLFE, LAWRENCE KENNETH  
WOOD, GEORGE H  
WOOD, ROBT HANCOCK JR  
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Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

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April 23-25	Lasers in Otolaryngology: Head and Neck Surgery
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June 3-6	Family Medicine Review
July 14-17	Contemporary Clinical Neurology
Aug. 7-8	Functional Endoscopic Sinus Surgery Workshop 1992
Aug. 11-16	Contemporary Medical Imaging IX—Hilton Head, S.C.
Oct. 1-3	Lasers in Otolaryngology: Head and Neck Surgery
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For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

## UNIVERSITY OF TENNESSEE

### Continuing Education Schedule

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Feb. 15-22	Clinical Medicine—Kauai, Hawaii
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March 14-20	25th Annual Review Course for the Family Physician
March 25-28	Critical Care and Emergency Medicine—Hot Springs, Ark.
July 26-31	Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.
Sept. 24-25	24th Memphis Conference on the Mother, Fetus, and Newborn

#### Knoxville

March 26-29	Critical Care Symposium—Asheville, N.C.
April 9-11	15th Annual Family Practice Update &



## *Psychotropic Drug Use In the Nursing Home*

JAMES A. GREENE, M.D. and SHERYL E. TAYLOR, L.C.S.W.

Nursing homes of today need to be recognized for their transformation in the past 20 years. Nursing homes are concerned not only with the terminally ill but also with those who require long-term care. Patients suffer from chronic diseases that cause functional problems in day-to-day living. Nursing homes are charged with the "preservation of dignity and purpose in the face of dependency and decline."<sup>1</sup>

### **Conditions Amenable to Psychotropic Medications**

At least 50% of nursing home patients suffer from dementia. Not only is dementia a progressive disease, but other variables, such as infections, depression, and metabolic abnormalities, can contribute to an exacerbation of the symptoms. They can all appear as a worsening of the dementia, when actually there may be a treatable condition.

Mr. A, a 78-year-old man, was admitted to the nursing home because of combative, threatening behavior. After a short period of time and treatment such behavior was no longer a problem and he was allowed more ambulatory freedom on the unit. Soon thereafter, Mr. A was found wandering in the nursing home parking lot. When asked where he was going, his reply was, "Oh, I was on my way home. It's just that they've changed this place so much I didn't

recognize it." Without much coaxing, he accompanied the aide back inside and on to his room.

The combative, threatening behavior in the above example had been treated with neuroleptics, but, unfortunately there is no chemical treatment for wandering, that purposeless activity wherein the patient feels as if he has to "go" somewhere, "do" something. Only environmental restraints will alleviate this problem.

Patients who suffer from neurologic disorders such as Alzheimer's disease, multi-infarct dementia, Binswanger's, Wernicke's, or related disorders, may have a predominance of psychiatric symptoms. Increased staff time and the use of physical restraints are more often the result of behavior problems than short-term memory symptoms.

Symptoms that respond nicely to psychotropic medications include restlessness, agitation, confusion, insistence on continuing a behavior regardless of the consequences, day/night reversal, climbing over bedrails, and perseveration. Other disturbing behavior patterns that respond to neuroleptics are those that are psychotic in nature. Suspiciousness, hallucinations, or delusions are common in demented patients, who suffer not only from compromised brain failure/function but also from visual and hearing impairments that increase the likelihood of misinterpretation of the environment.

For example, nursing home patients may become suspicious (paranoid), believing that others are steal-

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ing from them or are trying to injure them. Delusions persist in spite of evidence to the contrary, and reasoning is only a waste of time for personnel or visitors. ("My mother is living," or "I need to go take care of those babies.") Hallucinations are usually frightening not only to the victim but also to the family. Left untreated, symptoms often escalate, requiring more staff time.

These symptoms respond well to neuroleptics, and the judicious use of these medications may ease the distress experienced by both patients and staff. When prescribing psychotropic medications, it is important to remember the "right dose of the right medicine for the right patient." Most side effects (anticholinergic effects, oversedation) are due to dosages that are too high. One must take into account the normal physiologic changes of aging, when the usual adult dosage results in a higher concentration of free, active agent available to act on other than target receptor sites, increasing the risk of adverse effects.<sup>2</sup>

### Pharmacokinetics—Pharmacodynamics

Pharmacokinetics (what the body does to the drug) and pharmacodynamics (what the drug does to the body) are the main considerations in prescribing for this population. For neuroleptic/psychotropic agents, pharmacokinetics plays a role in absorption, distribution, metabolism, and excretion.

Absorption is not significantly clinically changed in the older patient. Distribution is impaired as lean body mass is replaced by fat. Psychotropics are lipid-soluble, and distribution can be slowed by decreased cardiac output, resulting in a decrease in serum proteins affecting the transport of medication. Almost all psychotropics are metabolized in the liver. In the elderly, there is a reduction of liver enzymes which act to convert drugs. Excretion is affected by reduced renal clearance. The sum of these changes leads to

higher blood concentrations in the elderly than in the younger patient given the same dosage.

The presence of disease affects the choice of drug. Statistics show that 85% of older adults have at least one chronic illness, 50% have two or more.<sup>2</sup> The right drug for the right patient means that this patient's coexisting illnesses are considered when prescribing neuroleptics. For example, an individual with Parkinson's disease suffers from a reduction in dopamine. Since major tranquilizers are dopamine-lowering agents, the results can be an exacerbation of the parkinsonian symptoms. Other tranquilizers may be as effective and lack the side effects (extrapyramidal symptoms). Another example is a patient with benign prostatic hypertrophy, who may have urinary symptoms aggravated by the anticholinergic effects of some antidepressants. Heart disease can also be complicated by psychotropics.<sup>2</sup>

### Description of Psychotropics

The neuroleptics include a heterogenous group of chemical compounds whose chief action is to calm disturbed patients without inducing sleep or clouding consciousness. Their capacity to improve mood and behavior and to alleviate anxiety without markedly disturbing the relationship of the individual with his environment distinguishes them from hypnotics and sedatives.<sup>3</sup>

### Antidepressants

Antidepressants can be effective in older patients, especially nursing home patients, who may be exhibiting fatigue, irritability, withdrawn behavior, somatic complaints, or poor oral intake. A low dose of an antidepressant (e.g., doxepin 10 mg) may ensure a good night's sleep, improve nutrition, and help self-esteem.

This population is certainly at risk for depression. Just the admission process itself can be traumatic. Changing a demented person's environment will

TABLE 1  
SIDE EFFECTS PROFILES OF VARIOUS ANTIPSYCHOTICS

	Anticholinergic	EPS	Sedation	CVS	Hypotension
Thiothixene	mild/moderate	moderate	mild	mild	mild
Haloperidol	mild/moderate	severe	mild	mild	mild
Perphenazine	moderate	moderate	mild	mild	mild
Trifluoperazine	moderate	moderate	mild	mild	mild
Fluphenazine	mild/moderate	severe	mild	mild	mild
Chlorpromazine	moderate/severe	moderate	severe	moderate	severe
Thioridazine	moderate/severe	mild	severe	moderate	severe
Mesoridazine	moderate/severe	mild	severe	moderate	severe



**TABLE 2**  
**SIDE EFFECTS PROFILES OF VARIOUS ANTIDEPRESSANTS**

	Anticholinergic	Orthostasis	Sedation	Cardiovascular
Nortriptyline	moderate	mild	mild	mild
Desipramine	mild	mild	mild	mild
Doxepin	moderate	moderate	moderate	mild
Amitriptyline	severe	severe	severe	moderate/severe
Maprotiline	mild	mild	mild	mild
Imipramine	moderate	severe	severe	moderate/severe
Trimipramine	moderate	moderate	moderate	moderate
Fluoxetine	mild	mild	mild	mild
Trazodone	mild	moderate	severe	mild

most likely result in confusion, irritability, or any number of disturbing behavior patterns. Consider the plight of a newly admitted patient to a nursing home: (1) failed health; (2) separation from home, family, friends (geographically or by death/illness); (3) feelings of uselessness and loss of power. These factors can cause the patient to give up hope or surrender.

### Side Effects

It is helpful when prescribing antidepressants and neuroleptics to review the side effects profiles and look at the anticholinergic effects—blurred vision, dry mouth, urinary retention, confusion, constipation. Extrapyramidal symptoms (EPS), sedation, orthostatic hypotension, and cardiac symptoms (e.g., tachycardia) may also occur. Let side effects work for you. A patient who is agitated, insomniac, and has hypertension may benefit from a psychotropic agent that has more sedating properties. When side effects interfere with quality of life they become adverse effects; when they do, a drug holiday or change is warranted.

Psychotropic agents can generally be categorized as follows: (1) antipsychotic agents—high and low potency, (2) antidepressants, (3) anxiolytics.

Tables 1 and 2 list psychotropic medications and their side effects profiles.

### The Benzodiazepines/Minor Tranquilizers

Benzodiazepines (BZDs) and so-called minor tranquilizers are another choice for anxiety and insomnia. Although rarely lethal, the long-acting BZDs should be avoided in older adults and the short-acting ones utilized. Keep in mind the physiology of aging where there is increased competition for both metabolic and protein-binding sites, resulting in more unbound drugs and slower elimination when several agents are administered concomitantly. Several drugs in this class are not recommended for this population (Miltown, Placidyl, Doriden) due to the likelihood of

toxicity and addiction. Table 3 shows the half-life of various BZDs.

### Prescribing

Although there is no rationale for prescribing more than one drug in the same class, a combination of one from each class may be just the “right equation.” One must, however, be knowledgeable about combining drugs with similar side effects profiles. For example, Amitriptyline and Thioridazine both have sedating qualities and can cause orthostasis and significant anticholinergic effects.

A good rule of thumb is to begin with one-third to one-half the dose usually prescribed for adults, with small, gradual increases. Doses may be administered at different times of day; for example, Nortriptyline 10 mg in the morning, 25 mg at bedtime. Individualize the dosage according to the symptoms to be treated, the side effects to be tolerated, and the occurrence of coexisting illnesses.

### Monitoring Neuroleptics

Any change in a patient's behavior or attitude should serve as a red flag—there may be a problem. Increased confusion, restlessness, pacing, a fall, in-

**TABLE 3**  
**HALF-LIFE OF VARIOUS BENZODIAZEPINES**

Longer Half-Life	Shorter Half-Life
Chlordiazepoxide	Alprazolam
Clorazepate	Lorazepam
Diazepam	Oxazepam
Flurazepam	Triazolam
Temazepam	

Example: The half-life of Valium is 20 hours in a 20-year-old and 90 hours in an 80-year-old.

TABLE 4

SHORT PORTABLE MENTAL STATUS QUESTIONNAIRE (SPMSQ)

Name: \_\_\_\_\_ Age: \_\_\_\_\_ Date: \_\_\_\_\_

Race:      W      B      O      Sex:      M      F      Years of Education: \_\_\_\_\_

Instructions: Ask questions 1-10 in this list and record all answers. Ask question 4A only if patient does not have a telephone. Record total number of errors based on ten questions.

+	-	
		1. What is the date of today? _____
		2. What day of the week is it? _____
		3. What is the name of this place? _____
		4. What is your telephone number? _____
		4A. What is your street address? _____
		5. How old are you? _____
		6. When were you born? _____
		7. Who is the President of the U.S. now? _____
		8. Who was President just before him? _____
		9. What was your mother's maiden name? _____
		10. Subtract 3 from 20 and keep subtracting 3 from each new number, all the way down. _____

\_\_\_\_\_ Total Number of Errors

TABLE 5

SHORT PSYCHIATRIC EVALUATION SCALE (SPES)

Please answer the following questions "Yes" or "No" as they apply to you now. There are no right or wrong answers, only what best applies to you. Occasionally a question may not seem to apply to you, but please answer either "Yes" or "No," whichever is more nearly correct for you.  
(CIRCLE "YES" OR "NO" FOR EACH)

1. Do you wake up fresh and rested most mornings?	Yes	No
2. Is your daily life full of things that keep you interested?	Yes	No
3. Have you, at times, wanted to leave home?	Yes	No
4. Does it seem that no one understands you?	Yes	No
5. Have you had periods of days or weeks when you couldn't "get going"?	Yes	No
6. Is your sleep disturbed?	Yes	No
7. Are you happy most of the time?	Yes	No
8. Is anyone plotting against you?	Yes	No
9. Do you feel useless at times?	Yes	No
10. During the past few years, have you been well most of the time?	Yes	No
11. Do you feel weak all over much of the time?	Yes	No
12. Are you troubled by headaches?	Yes	No
13. Have you had difficulty in keeping your balance in walking?	Yes	No
14. Are you troubled by your heart pounding or by shortness of breath?	Yes	No
15. Even when you are with people, do you feel lonely much of the time?	Yes	No



TABLE 6

BEHAVIORAL INTERVENTIONS:  
ALTERNATIVES TO DRUGS IN THE NURSING HOME ELDERLY<sup>5</sup>

Milieu and attitude therapy	Distraction
Validation	Reminiscence
Reframing the problem	Desensitization
Hypnosis	Group therapy
Brief directive psychotherapy	Family therapy
Behavior contracting	Paradoxical therapy
Restrictive and aversive therapies	Time out
Behavior modifications and token systems	

continence, oversedation, urinary retention, refusing to eat, constipation, problem with balance or mobility, and tremors may have underlying causes other than progression of the dementia. The changes may be drug induced. One should first review all medications to see if any may be contributing to the symptoms. Could the antidepressant be causing orthostatic hypotension, resulting in frequent falls? Perhaps a different antidepressant or a lower dose of the same one may be indicated.

Assessment of the patient's general medical condition is due to rule out any new problems, such as an infection which can present as increased confusion. Poor nutrition, electrolyte imbalance, B<sub>12</sub> deficiency, or thyroid disease are other possible contributing factors.

A screening device for mental status would involve administering a standard test quarterly. The SPMSQ—Short Portable Mental Status Questionnaire (Table 4) and the SPES—Short Psychiatric Exam Scale (Table 5), tools measuring cognitive and affective functioning, can provide reliable and valid data while being simple and timely for staff to perform and document.<sup>4</sup>

Bioassays measure drug plasma levels to help determine therapeutic benefit. A good rule of thumb, however, is the clinical picture—if it's working, don't mess with it. There are times when adjustments and changes are not effective. The disruptive behavior or unwanted condition persists. It would certainly be appropriate to consider a formal assessment, i.e., hospitalization under the direction of a psychiatrist (ideally, an acute care geropsychiatric unit). A specialist can then direct an interdisciplinary approach, which can intervene and help with diagnosis, treatment, and recommendations for management.

## Behavioral Modalities

It seems appropriate to comment briefly on strategies that are behavioral and work in conjunction with the pharmacologic plan. It is true that "least is best" in older adults; in other words, use the least possible number of medicines. Other variables play an important role in changing behaviors/symptoms that are frustrating to the patient. The staff and family can try creative approaches that can provide the individual with other alternatives for coping. Involvement in group therapy, music programs, milieu therapy, and behavioral contracting are all used by staff every day to help patients who are not coping.

Matching the treatment to the person based on knowledge of his individuality or lifestyle, helping the family cope with the stress of caring and the guilt of placement by educating them to the disease process, and advising them of resources are vital components to the overall treatment plan. Specific behavioral approaches are listed in Table 6.<sup>5</sup>

## Conclusion

Generally speaking, a good rule is (1) for depression, try antidepressants; (2) for delusions, treat with neuroleptics; (3) for delirium, find the underlying cause; (4) for behavior disorders, reduce by behavioral approach in a structured, consistent environment.

In summary, psychotropic medications have an important, perhaps essential, role in management of nursing home patients with dementia and depression. Adequate assessment of the patient's physical and mental condition, including consideration of coexisting illnesses, is essential for safe and successful treatment using psychotropic medications. Careful choice of these medications with regard to side effects and the patient's physical ailments is mandatory.

Quality of life for the older patient, decreased time, frustration and staff "burn-out," and increased "peace of mind" for patients' families can be the rewards of judicious use of these medications.

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# Laparoscopic Cholecystectomy In a Community Setting

MICHAEL D. KROPILAK, M.D.; HUGH C. HYATT, M.D.;  
RICHARD A. BRINNER, M.D.; P. KEVIN ZIRKLE, M.D.;  
JO FOWLER, R.N.; and TERESA WARREN, R.N.

## Introduction

The treatment of symptomatic gallstones has changed drastically since laparoscopic cholecystectomy was first described three years ago.<sup>1,2</sup> Not only has it arrived, but it may be the most common way of treating gallstones. Many questions have been raised about its safety and indications.

This report reviews our first 200 laparoscopic cholecystectomies in an effort to study the safety of laparoscopic cholecystectomy in a community setting and gain insight into the management of biliary disease in the 1990s.

## Patients and Methods

Between May 1990 and February 1991, 200 patients were evaluated for symptomatic gallbladder disease and laparoscopic cholecystectomy. The procedures were performed by four surgeons at three hospitals. Standard tests and laboratory work were utilized to make the diagnosis of cholelithiasis. Patients with acute cholecystitis and gallstone pancreatitis were included as candidates for laparoscopic cholecystectomy. The preoperative and postoperative diagnoses, utilization of preoperative ERCP, previous surgery, initial trocar site, time of procedure, use of laser, length of hospital stay, ability to tolerate a regular diet, time required to return to full activity, and complications in the first 100 patients were compared with those in the second 100 patients.

## Technique

The technique previously described by Reddick<sup>3</sup> was initially utilized. Nasogastric tubes were routinely placed and Foley catheters were not. The infra-umbilical area was the preferred initial percutaneous trocar site in a patient without previous abdominal surgery. The abdomen was insufflated with CO<sub>2</sub> to a

pressure of 15 mm Hg. Most of the dissection was done close to the gallbladder without being overly concerned about a long cystic duct. As we gained more experience, the laser was abandoned for a hooked electrocautery instrument. An effort was made to irrigate and suction blood and bile and to remove spilled gallstones. The umbilical fascia was routinely closed after our initial few procedures. Intramuscular pain shots were offered the first evening and most patients were switched to oral pain medications the next morning.

## Results

The age, sex, and postoperative diagnoses were similar in our first 100 (group 1) and our second 100 patients (group 2). More patients had gallstone pancreatitis in group 2 and a preoperative ERCP was utilized more often. There were 8 laparotomies (1 hydrops, 5 acute cholecystitis, 2 severely chronic) in group 2 as compared to 4 in group 1 (3 acute cholecystitis and 1 severely chronic) (Table 1).

*Operating Room Data.* Previous surgery, initial trocar site, and other operations performed with laparoscopic cholecystectomy were similar between group 1 and 2. The time of the procedure and use of laser decreased and the use of cholangiograms increased in group 2.

*Postoperative Data.* The length of hospital stay, ability to tolerate regular diet, and return to full activity all decreased in the group 2 patients.

*Complications.* There were no deaths and no bile duct injuries in this series. Three patients experienced bile extravasation from the liver bed, requiring percutaneous catheter drainage in two and a laparotomy in the other. One of the bile leaks occurred in a patient with a severely thickened gallbladder, and an ERCP was normal postoperatively. Another patient had a normal bile duct at exploratory laparotomy. One patient whose fascia was not closed developed a Richter's hernia in the umbilical area. Two patients

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were readmitted to the hospital, one with a bile leak and one with a fever. There were 13 postoperative fevers and two wound infections; two patients developed cellulitis. Overall, there were fewer complications in the group 2 patients. Only three of the complications occurred in patients with acute cholecystitis or severe chronic disease. One group 2 patient had a common bile duct stone removed by endoscopic laparoscopy. No patients have been diagnosed with retained common bile duct stones to date.

## Discussion

This experience demonstrates that laparoscopic cholecystectomy is a procedure that can be performed safely in the community hospital. That there were no bile duct injuries affirms that position, and compares favorably with the 1% incidence reported by Peters et al<sup>4</sup> and 2% reported by Zucker et al.<sup>5</sup> After one patient early in our experience developed a

Richter's hernia, we thought it was wise to close the umbilical fascia.

We experienced three bile leaks, which we attribute to the small biliary radicles entering directly into the gallbladder bed, first demonstrated by Luschka.<sup>6</sup> We have seen leakage of bile from the liver bed in three patients and have controlled it with electrocoagulation. Interestingly, we have not encountered this in our most recent 100 patients. There were a number of postoperative fevers, and their etiologies are probably many, including periliver fluid collections. Minor complications are listed in Table 1. As we gained more experience, our indications for laparotomy seemed to become more liberal, increasing from 4% to 8%.

We believe that our review helps us gain insight about the management of symptomatic gallstones and allows us to make the following statements:

(1) Laparoscopic cholecystectomy can be performed safely in acute and chronic cholecystitis, biliary pancreatitis, and probably in the near future for common bile duct stone extraction. Contraindications have decreased, and may be limited to pregnancy. Caution has to be used throughout, and the procedure is not considered a failure if a laparotomy has to be performed.

(2) Lasers are expensive, and probably not necessary.

(3) We presently use selective cholangiography and favor preoperative ERCP and stone extractions for choledocholithiasis. If ERCP is unsuccessful one can try a laparoscopic endoscopic common bile duct exploration or perform an open cholecystectomy. We have tried to avoid situations where an open cholecystectomy and common bile duct exploration is done before an ERCP sphincterotomy is performed. Cholangiograms will become more routine when endoscopic common duct equipment improves.

(4) Laparoscopic cholecystectomy can be done with less pain, shorter hospital stays, less time away from work, and a more favorable cosmetic result than an open cholecystectomy.

**TABLE 1**  
**RESULTS**

	Group 1 (1st 100)	Group 2 (2nd 100)
Sex M:F	23:77	32:68
Age (Range)	47.5 (12-83)	47.5 (18-85)
Acute Cholecystitis and Severe Chronic Disease	14	13
Gallstone Pancreatitis	3	6
Preoperative ERCP	11	17
Laparotomy	4	8
Time (Range) mins	73.6 (20-170)	64 (25-235)
Use of Laser	54	3
Cholangiograms	1	4
Previous Abdominal Surgery	44	47
Nonumbilical Initial Trocar Site	17	13
Concomitant Surgeries Performed		
Umbilical Hernias	3	3
Liver Biopsy	2	3
Laparoscopic Tubal Ligation	1	1
Postoperative Data		
Hospital Stay (days)	1.8	1.6
Tolerating Regular Food (days)	1.6	1.3
Return to Regular Activity (days)	13.5	10.7
Complications		
Postoperative Fever	8	5
Bile Leak	2	1
Wound Infection	1	1
Readmission	2	—
Cellulitis Umbilicus	2	—
Urinary Tract Infection	1	—
Bronchitis	1	—
Diarrhea	1	—
Acute Pulmonary Edema	1	—
Richter's Hernia	1	—
Bile Duct Injuries	0	—

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## Fracture-Dislocation of the Femoral Head

MICHAEL R. HENDERSON, M.D. and H. BARRETT HEYWOOD, M.D.

### Introduction

Traumatic dislocations of the hip joint most commonly result from motor vehicle accidents in which an unrestrained occupant's knee strikes the dashboard while the hip is flexed. In one large series, 8% of traumatic dislocations of the hip joint were associated with fractures of the femoral head.<sup>1</sup> Hip fracture-dislocations were classified by Pipkin,<sup>2</sup> and have been thought to carry a less favorable prognosis than uncomplicated hip dislocations because of the increased risk of posttraumatic arthritis and avascular necrosis of the femoral head. Appropriate management has been shown to lessen the risk of these complications, so that the outcome need not be uniformly poor.<sup>3</sup>

### Case Report

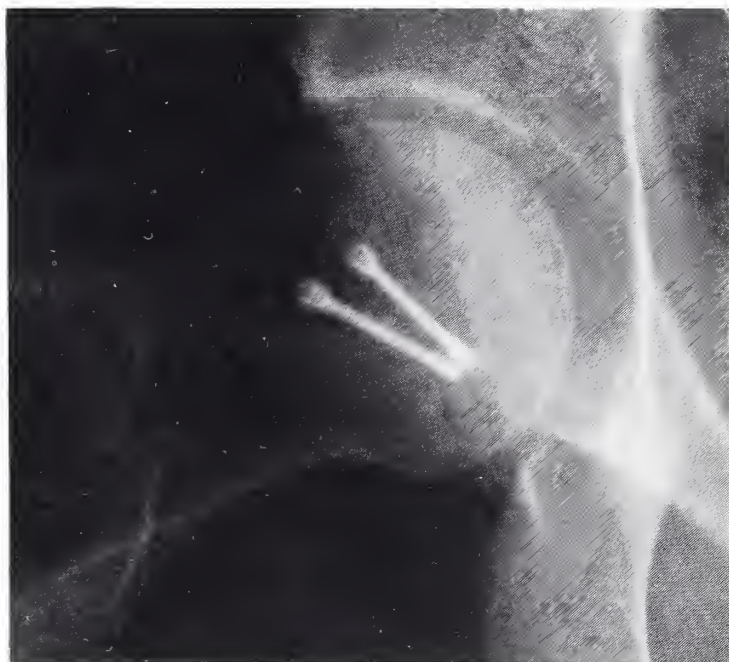
A 23-year-old woman was thrown from her automobile in a high-speed accident. Upon evaluation at the trauma center, she was hemodynamically stable, with primarily orthopaedic

injuries. These included bilateral posterior hip fracture-dislocations, a type I open left ulna fracture, a closed fracture of the left radius, and fractures of the left humeral neck and pubic rami. Retrograde cystogram showed no evidence of a urinary bladder injury. A CT scan of the abdomen showed a liver laceration that was managed nonoperatively. Additional CT cuts taken through the hips demonstrated posterior position of the femoral heads, and a large femoral head fragment retained with the right acetabulum (Fig. 1). The dislocated hips were gently reduced under general anesthesia approximately three hours after injury. The open ulna fracture was debrided, and the forearm fractures were internally fixed. Examination under anesthesia showed both knees to be stable.

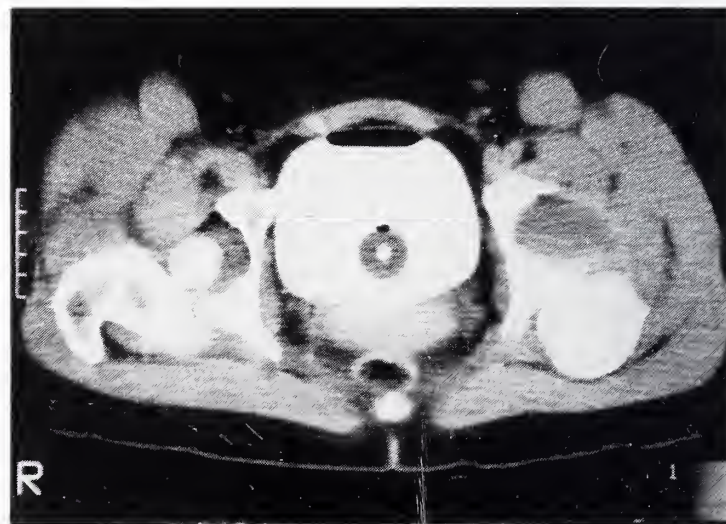
Follow-up CT scan of the pelvis at three days after injury showed congruent hip reductions, but residual displacement of the right femoral head fragment, as well as several small loose bone fragments within the hip joint. Two weeks after injury, she underwent debridement of the hip joint and internal fixation of the large femoral head fragment with Herbert screws through an anterolateral approach. After an uneventful recovery, she was discharged three weeks after her accident. At a two-year follow-up visit, the right hip was stable and congruent, with no evidence of avascular necrosis or posttraumatic arthritis (Fig. 2).

### Discussion

Time is the critical factor in determining the prognosis after hip dislocation. If reduction is not accomplished within six hours after injury, the incidence of subsequent avascular necrosis of the femoral head rises to an unacceptable level.<sup>3</sup> Therefore, the primary



**Figure 1.** CT scan demonstrating the posterior position of the femoral heads and indicating a large femoral head fragment retained within the right acetabulum.



**Figure 2.** Plain radiograph of the hip at two-year follow-up, showing no evidence of avascular necrosis or posttraumatic arthritis.

From the Department of Surgery, University of Tennessee College of Medicine, Chattanooga Unit.



goal of treatment of these injuries is to obtain a stable and congruent reduction of the hip joint with minimum delay. Closed reduction is preferred so that surgical insult to an already compromised femoral head blood supply can be avoided. Multiple attempts at closed reduction are contraindicated.<sup>1</sup> Absolute indications for surgical treatment include an inadequate closed reduction, significant comminution, sciatic nerve injury not present prior to reduction, or associated fractures of the femoral neck or weight-bearing portion of the femoral head.<sup>4</sup>

Management of femoral head fractures with a large caudad fragment (Pipkin type I) is controversial. Epstein advocated the removal of these fragments,<sup>1</sup> while Pipkin believed they should be retained to help preserve a congruent hip joint.<sup>2</sup> Kelly and Yarbrough pointed out that large medial femoral head fragments retained within the acetabulum often possess soft tissue attachments from the medial capsular retinaculum and ligamentum teres, and may therefore remain viable.<sup>5</sup> In their series of 27 cases, the best results were obtained with closed reduction, while excision of the large femoral head fragment led to the poorest results. They

reserved open reduction and internal fixation for fragments with unacceptable position.

In the present case, operative repair was indicated for the removal of small loose fragments within the joint. Internal fixation was applied to insure an anatomic reduction of the femoral head fragment, and thereby lessen the risk of posttraumatic arthritis in this young patient. An anterolateral surgical approach was chosen to provide optimal exposure of the femoral head fracture, taking care to avoid injury to the femoral head vascular supply. With only a slight loss of adduction, and no radiographic changes of arthritis or osteonecrosis at two-year follow-up, her result would be graded as good by Epstein's criteria.<sup>1</sup>

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## Spontaneous Cholesterol Emboli Presenting as Livedo Reticularis

### Case Report

A 66-year-old woman complained of leg pain and rash. The patient had felt well until three months before admission, when she began to notice pain in her calves. The pain was worse when she walked. A reticular, erythematous rash which had begun on her right calf extended to involve her anterior thighs and abdomen. A skin biopsy showed small vessel thrombosis, consistent with livedo reticularis. An erythrocyte sedimentation rate was 123 mm/hr, and antinuclear antibodies (ANA) were weakly positive at 1:80. Rheumatoid factor, rapid plasmin reagin (RPR), anticardiolipin antibody, and complement levels were all normal or negative. During the 2½ months since the patient first saw her physician, her rash had progressed to involve her left leg; in addition, her right first toe had become blue, which she attributed to having caught her toe in a door two weeks earlier.

The patient had a history of hypertension and hypercholesterolemia. She smoked several packs of cigarettes per day. She had a history of carcinoma of the vulva. Her medications on admission were atenolol and aspirin.

Physical examination revealed a blood pressure of 162/84 mm Hg. Ophthalmologic examination revealed no Hollenhorst plaques. There were no carotid bruits, and cardiovascular examination was normal. The abdomen was normal and without bruits. The dorsalis pedis and posterior tibialis pulses were diminished in both legs, and the right first toe was cyanotic. Livedo reticularis involved the dorsum of both feet, the anterior and posterior aspect of the legs, and the anterior thighs.

Laboratory examination, including the differential, WBC count, serum creatinine, and urinalysis, was normal. There was no peripheral blood eosinophilia. ANA were again positive at 1:80. Antidouble stranded DNA antibody was negative, and rheumatoid factor, anticardiolipin antibody, Russell's viper venom test, and cryoglobulins were all normal and/or negative. An arterial Doppler study of the legs revealed distal disease. Two additional skin biopsies were obtained, the second demonstrating cholesterol clefts within an occluded arteriole.

The patient's aspirin was discontinued and she was strongly advised to stop smoking.

### Discussion

This case illustrates one of the many protean manifestations of systemic cholesterol embolization<sup>1-3</sup>—livedo reticularis. In patients with severe atherosclerotic disease, disruption of atherosclerotic plaques may result in microembolization of cholesterol-rich material, producing obstruction of small arteries and arterioles. Most often this follows procedures such as angiography or vascular surgery. Administration of such anticoagulants as aspirin, heparin, warfarin, and streptokinase may also precipitate cholesterol embolization. Spontaneous cholesterol embolization, as in our patient, is less common.

Presented by Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.

Cholesterol emboli may involve any organ, but most commonly affect the skin, kidney, pancreas, spleen, GI tract, myocardium, muscles, and extremities. The predilection of cholesterol emboli for the lower extremities and abdominal viscera may be related to the frequent involvement of the abdominal aorta by ulcerative atherosclerosis.<sup>1</sup>

Physical findings may be sparse in patients with cholesterol emboli. Livedo reticularis of the lower extremities is the most common skin manifestation<sup>4</sup>; other skin manifestations include necrotic toes, cyanosis, ulceration, nodules, and purpura. The finding of retinal cholesterol emboli or Hollenhorst plaques is helpful in establishing the diagnosis. These are refractile emboli most often found at the bifurcation of retinal arteries.<sup>5</sup>

An elevated sedimentation rate, eosinophilia, hypocomplementemia, and thrombocytopenia are the most common laboratory abnormalities seen in patients with systemic cholesterol emboli, and patients may be mistakenly diagnosed as having sepsis or vasculitis. More than 80% of patients are said to have eosinophilia (defined as an absolute eosinophil count greater than 350/cu mm).<sup>6</sup> Patients with renal cholesterol emboli may have eosinophiluria on Hansel's stain of the urine.<sup>7</sup> Proteinuria is unusual.<sup>1</sup> Diagnosis is made by biopsy of an affected organ, which demonstrates intra-arterial biconvex needle-shaped clefts of cholesterol. Observers may mistake the clefts, remaining after the fixation process removes cholesterol, for recanalized lumina.

Treatment consists of prevention through modification of a patient's risk factors for atherosclerotic vascular disease. Anticoagulants are contraindicated. Soft catheters should be used whenever invasive vascular procedures are unavoidable. Occasionally, resection of an atherosclerotic aneurysm will lead to resolution of embolization.

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# Chest Pain in a Young Woman

## Case Report

A 24-year-old woman with a history of insulin-dependent diabetes mellitus and panic attacks presented herself to Vanderbilt University Hospital emergency department. She had awakened in her usual good health, but later, while driving her car, she suddenly felt "nervousness" and midsternal chest pressure radiating bilaterally towards the neck. The discomfort in her chest subsided in several hours, but she continued to feel a "fullness" in the upper chest and neck. There was no dyspnea, diaphoresis, fever, dysphagia, or cough. Her symptoms were not like her usual panic attacks, and there was no history of recent trauma or strenuous activity. She used neither tobacco nor intravenous drugs. She had had gastroenteritis, with one episode of nausea and vomiting, two days earlier.

On physical examination she was in no discomfort; her blood pressure was 130/70 mm Hg, pulse 90/min, respiratory rate 18/min, and temperature 98°F. Pupils were reactive, with normal extraocular movements. Neck was nontender without adenopathy or subcutaneous emphysema. Carotid and peripheral pulses were full and equal. Cardiac examination was normal, and her lungs were clear to auscultation. Abdominal and neurologic examinations were normal. Laboratory studies included normal electrolytes and creatinine. Arterial blood gas studies while breathing room air revealed a pH of 7.40,  $\text{Pco}_2$  40 mm Hg, and  $\text{Po}_2$  88 mm Hg. The electrocardiogram was normal. Radiograph of the chest revealed pneumomediastinum, without pneumothorax, infiltrates, or effusions, and radiographic examination of the esophagus with gastrograffin revealed no rupture. The patient was sent home to be reexamined in the outpatient department in two days.

## Discussion

Spontaneous pneumomediastinum, described in 1939 by Hamman,<sup>1</sup> is present in 1 in 7,000 to 12,000 hospital

admissions, usually in a patient between 8 and 31 years of age. It usually follows an episode of increased intrathoracic pressure, such as vomiting, seizure, coughing, parturition, asthma exacerbation, or inhaled drugs. Initial complaints include anterior chest pain (88%), dyspnea (60%), neck pain (48%), dysphagia (40%), back pain (16%), swollen neck, and abdominal pain. The physical examination may be normal, or there may be subcutaneous emphysema (60%), Hamman's sign, a precordial crunching sound synchronous with the heart beat (40%),<sup>2</sup> pulsus paradoxus, and decreased heart sounds.<sup>3</sup>

The diagnosis of spontaneous pneumomediastinum requires the exclusion of other causes of pneumomediastinum, including Boerhaave's syndrome, rupture of the esophagus, and soft tissue infection. Boerhaave's syndrome classically consists of vomiting, chest pain, subcutaneous air, and apparent toxicity. Atypical presentations occur, and, given the mortality of esophageal disruption at 64% to 70%, a contrast esophagram should be performed.<sup>1</sup> Radiograph should also be reviewed for pneumothorax, which is found in 10% to 18% of patients.<sup>1</sup>

The natural history of spontaneous pneumomediastinum without esophageal rupture or other underlying illness is benign, with chest pain and mediastinal air resolving over two to seven days without treatment. Observation of the patient for a few days on an outpatient basis is important.<sup>1,3</sup>

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Prepared by Paul J. Sabbatini, M.D., medical resident, Vanderbilt University Hospital, Nashville.

# Multinodular Goiter Causing Airway Obstruction

## Case Report

An 87-year-old female nursing home resident was transferred to Vanderbilt University Hospital for evaluation of possible tracheal obstruction. She had a history of mild dementia, type 2 diabetes mellitus, ischemic heart disease, and degenerative arthritis. Six days before her transfer to Vanderbilt Hospital, she was admitted to another hospital with pneumonia and congestive heart failure, where she was treated with intravenous antibiotics, intravenous methylprednisolone, aerosol-

ized albuterol, furosemide, and nitroglycerin ointment. On the third hospital day, she developed acute respiratory distress, for which an endotracheal tube was placed. She also developed atrial fibrillation, and was treated with intravenous procainamide. Over the next three days her lungs improved, and her endotracheal tube was removed, but when she developed stridor, the tube was reinserted. When a second attempt to remove the tube also failed, she was transferred to Vanderbilt.

The patient was an elderly woman in no distress; an endotracheal tube was in place. Except for a palpable right goiter, the physical examination was unremarkable. A radiograph of the chest revealed diffusely increased interstitial markings, and

Prepared by Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.

there was a right apical opacification consistent with a retrosternal goiter. Arterial blood gas studies revealed a  $PO_2$  of 132 mm Hg,  $PCO_2$  32 mm Hg, and pH 7.44 while breathing 40% oxygen. Minute ventilation, inspiratory force, and tidal volume were all normal.

When the endotracheal tube was removed during bronchoscopy, the trachea was noted to close, but the trachea was otherwise normal. A CT scan of the neck and thorax revealed an enlarged thyroid gland, the right lobe measuring  $5 \times 5$  cm and the left lobe  $2 \times 2$  cm; thyroid function tests were normal. A technetium thyroid scan revealed enlargement of the right lobe of the thyroid and a cold nodule in the left lobe, fine-needle aspiration of which was consistent with multinodular goiter. Thyroidectomy with parathyroid reimplantation was done, and histologic examination showed a multinodular goiter. Her endotracheal tube was successfully removed postoperatively. She has required oral calcium supplementation, in addition to thyroid replacement. She has been discharged and is doing well.

## Discussion

Multinodular goiter is a disease of the elderly, arising in long-standing simple goiter.<sup>1,2</sup> Patients may be hyperthyroid ("toxic" multinodular goiter) or euthyroid (non-toxic multinodular goiter). Toxic nodular goiter is associated with the development of scattered foci of functional autonomy throughout the thyroid gland, and scintillation scanning may show either patchy foci of iodine accumulation or several discrete nodules; functional autonomy may also be seen in a fourth of non-toxic multinodular goiters. This may be evidenced by a subnormal response to thyrotropin-releasing hormone (TRH). Administration of iodides, such as contrast dye, may precipitate thyrotoxicosis in these patients (Jod-Basedow phenomenon).

Thyrotoxicosis in elderly patients with multinodular

goiter may be subtle. Constitutional or cardiovascular symptoms may predominate. The thyroid response to TRH is subnormal in patients with toxic multinodular goiter. This test is nonspecific, since TRH-responsiveness declines normally with age. Levels of  $T_4$  and  $T_3$  may be only minimally elevated in toxic multinodular goiter, but a suppressed TSH level confirms hyperthyroidism.

In addition to causing hyperthyroidism, multinodular goiter may cause airway obstruction,<sup>3</sup> as it did in this patient. When pulmonary function testing is performed, evidence for airway obstruction may be found in as many as 60% of patients with non-toxic goiter.<sup>4</sup>

Ablative therapy with  $^{131}I$  is the treatment of choice in toxic multinodular goiter. A higher dosage than usual is required because  $^{131}I$  uptake may not be uniform, and only modestly increased. Patients are often pretreated with antithyroid agents so as to reduce the effects of radiation thyroiditis. The onset of symptomatic airway obstruction necessitates surgical intervention. Thyroidectomy usually relieves obstruction, but there may rarely be tracheomalacia and airway collapse following thyroidectomy.

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S. TODD ROTH, M.D. and ROBERT E. LASTER JR., M.D.

## Case Report

A 60-year-old man arrived in the emergency room complaining of nausea, vomiting, and severe abdominal cramping. His symptoms began approximately two days earlier as vague abdominal discomfort which progressed to severe cramping on the day prior to presentation. He had had a bowel movement within the past 24 hours, and denied fever or chills. On physical examination the abdomen was distended with hypoactive bowel sounds. There was some fullness below the umbilicus, which was tender to palpation; tenderness to palpation was also noted in the left lower quadrant. There was no palpable mass. The WBC count was 20,000/cu mm. After considering the history and examining the CT image in Fig. 1, choose the most likely diagnosis:

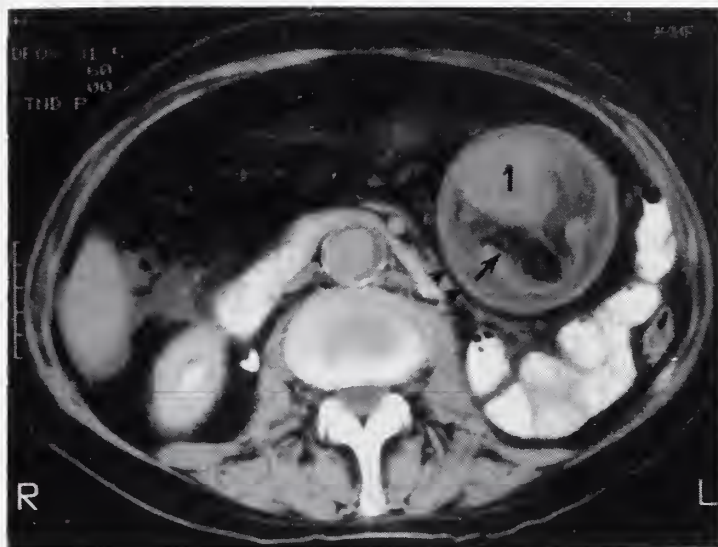
- (1) Primary small bowel neoplasm
- (2) Inflammatory bowel disease
- (3) Intussusception
- (4) Diverticulitis with abscess formation

## Discussion

The axial CT image in Fig. 1 was obtained through the mid-abdomen at the caudal aspect of the right lobe of the liver. In the left side of the abdomen the CT scan shows a large complex mass that contains fluid density, soft tissue density, and fat density. This appearance is typical of intussusception. At surgery the patient was found to have an intussusception of the terminal ileum and ascending colon into the transverse colon due to a large cecal mass, found to be a moderately differentiated infiltrating adenocarcinoma of the cecum.

Intussusception is the invagination of a portion of bowel (the intussusceptum) and its mesentery into the lumen of an adjacent segment of bowel (the intussusciens). The prevalence of intussusception in adults is 5% to 16%, 90% of which are ileocolic.<sup>1,2</sup> In contrast to childhood intussusception, which is idiopathic in 90% of cases, adult intussusception is caused by an organic lesion in over 90% of the cases.<sup>2</sup> Primary colon carcinoma is the most common cause of colonic intussusception, whereas intussusception of the small bowel is usually associated with benign tumors, including submucosal masses. Meckel's diverticulum and metastatic disease to the small bowel may also cause intussusception.<sup>3</sup> Melanoma is the most common metastatic lesion to small bowel to cause intussusception.<sup>4</sup>

The CT appearance of intussusception is often pathognomonic.<sup>5</sup> The intussusciens appears as a distended loop of bowel with apparently thickened walls



**Figure 1.** The intussusceptum is eccentrically located (symbol #1). The crescent-shaped mesenteric fat of the intussusceptum (arrow) with enhancing mesenteric vessels is identified. There is apparent thickening of the wall of the intussusciens (arrowheads) due to infolding of two layers of bowel wall.

due to the two layers of bowel which results from infolding of the intussusceptum into the intussusciens. The intussusceptum is commonly eccentrically situated due to its attached mesentery, which displaces it to the antimesenteric side. The mesenteric fat appears as a crescent-shaped, low-attenuation mass within the intussusciens. Mesenteric vessels may show enhancement within this crescent-shaped mass, further supporting the diagnosis. If the mesenteric blood supply is compromised, edema, ischemia, and thickening of the bowel wall may be seen. A leading mass may be identified either as a soft tissue mass in the case of a tumor, or as a discrete low attenuation mass in the case of a lipoma.<sup>6</sup> As illustrated by this case, CT is an excellent examination for making the diagnosis of intussusception.

**ANSWER:** (3) Intussusception

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## The Public Health Laboratory: Its Evolving Role in the HIV/AIDS Epidemic

MICHAEL W. KIMBERLY, Dr.P.H.

From the beginning of the HIV/AIDS epidemic, public health laboratories have provided HIV antibody testing to support public health counseling and testing sites (formerly alternative test sites) established especially for high-risk individuals to be tested and counseled about HIV infection and high-risk behavior. They have also continued to serve in their traditional role of reference laboratories to assist in the diagnosis of infectious and communicable diseases. Private laboratories regularly refer problem diagnoses for confirmation of HIV infection to public health laboratories.

Recent recommendations for the management and treatment of asymptomatic HIV-infected persons have caused state and local public health laboratories to reevaluate their customary diagnostic and supportive roles. The province of the public health laboratory in the HIV/AIDS epidemic has expanded far beyond what it has been in the past to include a number of critical new functions. For example, the Centers for Disease Control (CDC) will soon require CD<sub>4</sub> cell counts on each case of AIDS reported to the federal agency.

HIV testing continues to undergo rapid change due to the introduction of new technologies, modification of existing tests, and application of testing to the changing needs for dealing with the HIV/AIDS epidemic. These dynamic factors necessitate continuing comprehensive test standardization and the monitoring of test performance and its impact on public health. Laboratory training has been a traditional role of public health laboratories to help improve the quality of laboratory services, and it is especially critical for HIV testing. Training courses in HIV testing have been given priority because of the recognition that appropriately trained personnel are crucial to quality performance. In 1988, the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD) Training Committee engaged in a joint effort with the CDC and

established the National Laboratory Training Network (NLTN). The network was set up to bring training courses to all health laboratories across the United States. One of the seven NLTN offices is located in the State Laboratory in Nashville.

Proficiency testing is an essential component for assessing the reliability of laboratories that perform HIV testing. Through the efforts of the ASTPHLD, a National Model Performance Evaluation Program was initiated by the CDC. Information obtained from this performance evaluation program will ultimately help to further enhance the reliability and quality of HIV testing services.

Another significant role is the regulation of laboratories that perform HIV testing to ensure the quality of testing and the reliability of laboratory results. As public health laboratories, we have a responsibility to oversee the quality of laboratory services provided to the public and to take whatever measures are necessary to upgrade their quality.

In 1986, the ASTPHLD began a process to standardize methods for HIV testing and the interpretation of laboratory results. A Consensus Conference for Human Retrovirus Testing is held annually by the Association to standardize new technologies for retrovirus testing not only for HIV-1, but also for HIV-2 and HTLV-1/2. Criteria for the interpretation of Western Blot bands established by the consensus process were recommended by the CDC as the interpretative guidelines for the Western Blot procedure. Use of these criteria provides the greatest number of true positive HIV antibody test results and the fewest number of equivocal test outcomes.

Public health laboratories now participate in seroprevalence studies of selected clinic populations to assist public health officials in tracking the epidemic and in monitoring trends in seroprevalence over time. Testing is also performed to assist physicians in diagnosing HIV infection, AIDS, and AIDS-associated infections such as tuberculosis and other bacterial, fungal, viral, and parasitic infections.

Public health laboratories have assumed many im-

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From the Tennessee Department of Health, Nashville. Dr. Kimberly is director of the TDH Laboratory Services.

Portions of this article have been excerpted from information delivered to a congressional hearing by Dr. Joe Joseph, representing the ASTPHLD.



portant responsibilities and are now confronted with new issues, such as:

- Investments for flow cytometry program to measure immune status,
- Establishing retrovirology laboratories to monitor developing antiviral resistance,
- Providing additional safe and appropriate laboratory facilities for virus culture,
- Acquiring additional staff with special training, and
- Providing polymerase chain reaction technology to diagnose HIV infection in infants born to antibody-positive mothers.

These and other issues have generated concern among directors of state public health laboratories. A panel of experts was convened by the Association in December 1989 to address these issues. The report of this panel, "The Public Health Laboratory Role in Early Intervention and Treatment of Human Immunodeficiency Virus Infections," was adopted by the ASTPHLD and the Association of State and Territorial Health Officials in July 1990.

While the content and direction of the report may represent a departure from current public health laboratory practice in some jurisdictions, it *does* present the first opportunity for public health laboratories to call attention to their primary role in the HIV/AIDS epidemic.

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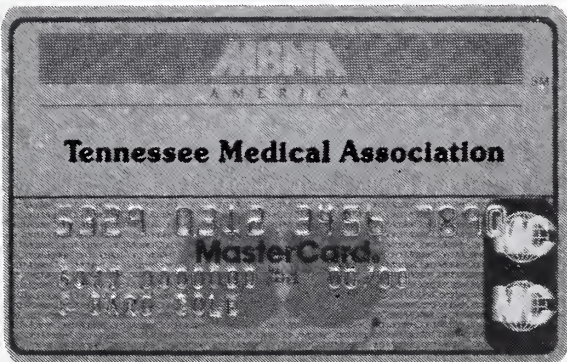
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## Pial Arterioles and Hypocapnia

LARRY J. PHARRIS; ROBERT MIRRO, M.D.; and CHARLES W. LEFFLER, Ph.D.

During the neonatal period, cerebral resistance vessels (arterioles) constrict in response to hypocapnia. This physiological response is often used therapeutically to attenuate cerebral edema. Because many of the cerebral vasoactive responses of the neonatal brain are mediated by prostanoids, we designed these experiments to determine the role of cerebral prostanoid production during periods of hypocapnia. We measured the pial arteriolar diameter and the prostanoid content of the cortical subarachnoid cerebral spinal fluid (CSF) of newborn pigs, each equipped with a closed cranial window mounted over the parietal cortex. Both prostanoid-dependent dilator responses (to hypercapnia) and prostanoid-independent constrictor responses (to epineph-

rine) were determined from pial arteriolar diameter changes both before and after treatment with indomethacin. CSF was sampled and prostanoids were measured both before and during the period of hypocapnia.

**Results:** The pial arterioles constricted similarly in response to the hypocapnia ( $\text{PaCO}_2 = 15$  to  $24$  mm Hg) both before ( $-13\% \pm 3\%$ ) and after ( $-16\% \pm 2\%$ ) treatment with indomethacin. There was no increase in CSF prostanoids during hypocapnia. The vascular response to hypercapnia was lost after treatment with indomethacin, but the response to norepinephrine remained in tact.<sup>1</sup>

The results of these experiments show that although the hypercapnia-induced dilation is a prostanoid-dependent response, the hypocapnia-induced constriction is not.

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From the Departments of Physiology and Biophysics, Pediatrics, and Obstetrics and Gynecology, Laboratory for Research in Neonatal Physiology, University of Tennessee College of Medicine, Memphis. Larry Pharris is a second year medical student.

This investigation was supported by NIH grant T35 DK07405-07.

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### HELP FOR IMPAIRED PHYSICIANS

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

### HELP US TO HELP

Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.



# Remember the Physical?

J. KELLEY AVERY, M.D.

### Case Report

A 19-year-old woman reported to her obstetrician giving a history of an LMP of Oct. 22; EDC was calculated to be July 29. Findings on examination of the uterus were consistent with her history of about 6+ weeks gestation. The history was unremarkable except for smoking 20 cigarettes a day. The pelvic examination further was recorded in the office record: BI—WNL; DC—10 cm; arch— $<90^\circ$ ; sacrum—flat; coccyx—rigid; impression—borderline pelvis.

The patient was seen at the expected intervals of one month through the 28th week. The blood pressure and FHT were considered normal. An occasional trace of albumin appeared in the urine. In the last 10 weeks of pregnancy the blood pressure rose to levels of 138-156/90-94 mm Hg. At about 39 weeks a biophysical profile was done. There was no report of fetal activity, but the gestational age was determined to be 38 to 39 weeks with an estimated fetal birth weight of about 3,500 gm. Three weeks later the patient was examined and the cervix was said to be soft and about 3 cm dilated and 75% effaced; she was thought to be in early labor.

The patient was admitted to the labor room and after 2½ hours of observation it was noted that there were "insufficient uterine contractions." Augmentation with Pitocin was ordered.

After five hours of gradually increasing intravenous Pitocin, "minimal variability" was noted and the Pitocin was stopped. Uterine contractions continued for the next three hours and the dilatation was noted to increase to 8 cm. Ten hours after admission, with no further progress, the Pitocin was restarted.

The augmentation continued, keeping the contractions at 2- to 3-minute intervals. The dilatation was noted to be complete 19 hours after admission. "Minimal variability" was noted on two other occasions during this period, and the patient was taken to the delivery room. Examination revealed some caput to be present, and low forceps were applied. Again the cervix was said to be completely dilated, but the station was reported to be +1.

Tucker forceps were applied and the head was brought to +2 to +3 station and the forceps were removed. With "minimal fundal pressure" the head was delivered. There was considerable caput, and some "cephalhematoma" was described over the left temporal area of the skull. The muscle tone of the infant was not described, but a pediatrician was called to evaluate the baby.

About one hour after delivery, the infant was examined by the pediatrician, who found a lethargic infant who cried only when stimulated and had a large caput/hematoma above the left ear. X-rays of the skull showed a definite depressed right parietal skull fracture with the noted cephalhematoma on the left side of the head. An emergency transfer to the medical center was accomplished.

In the medical center hospital, a CT scan of the head revealed the above-described fracture, some blood in the sub-

galeal area, with subdural and subarachnoid blood as well. Seizures were observed, and were brought under control by medication. The CT abnormalities resolved during the hospitalization and the baby was discharged after two weeks to go home with her parents.

A complete neurologic evaluation at 22 months of age revealed that there had been no more seizures since discharge from the medical center hospital at 3 weeks of age, and an EEG was found to be normal. The neurologist thought that speech would be slow to develop, and it was his opinion that the seizures and the delayed speech development were the direct result of injury at birth.

A lawsuit was filed, charging the obstetrician with negligence because he did not do a cesarean section in a timely fashion, and attempted to deliver the child vaginally by applying midforceps in a situation where he had already identified a "borderline pelvis." A defense could not be developed, making a settlement mandatory.

### Loss Prevention Comments

When this case is examined retrospectively with all the records available to the reviewer, it is very difficult to understand how the physician could manage this patient's case in the way he did! Did he not take cognizance of the small pelvis after he had described it in the initial examination? Did he not wonder why, after augmenting the labor for more than 12 hours, the head did not descend into the pelvis as one would expect? Even after this experience, and with the patient under anesthesia, the head was still found at a +1 level. One would think that he would have surely related the failure of the head to descend into the pelvis to a cephalo-pelvic disproportion as a result of the "small pelvis." Had he processed the management of this patient with all the facts in mind, he would certainly not have tried to do a forceps extraction through this compromised pelvis.

Why did this attending physician not recognize the difficulties presented by this labor, and proceed to do the cesarean section avoiding this traumatic delivery? Only the attending physician can really answer this question. We are left to conclude that he did not look at his initial physical examination after he had done it, and proceeded to manage this patient as if she had a normal pelvis. The reason for a medical record in the first place is to cause us to keep in mind important facts about the patient that will help us to better evaluate and treat. Here our physician ignored his own good record, and almost certainly caused patient injury.

Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

## **Patient Relations Guidelines: Interacting With Your Employees**

ROBERT BOWERS, M.D., *Chairman*  
TMA Communications and Public Service Committee

There is an area of their practices that many doctors may not think of as patient relations, yet it can have a profound impact on the image of their practice. That area is employee relations.

The way you treat your staff and the way your staff treats your patients can have great impact—negative or positive—on the impression your office makes. Good patient relations is an important aspect of the Community Awareness, Resource, and Education (CARE) program, which was established to give Tennesseans a positive image of the practice of medicine and physicians.

Following are tips regarding working smoothly with your employees. Some of these tips may already be part of your office routine, others may be new ideas. They were gathered through informal focus groups and research with physician offices and were used with our CARE Mission: Possible program.

- Your patients are watching you. Your patients are observing your interactions with your office staff, what you say to the staff members, and how you act toward them. To the patients it's a reflection of the kind of person you are and the way they can expect to be treated by you.

- If there are problems between you and your staff members, they would appreciate your handling them privately. If you need to correct an employee or discuss a problem, never do it in front of patients or even other employees. Go into your office, where the situation can be handled discreetly without hurting your employee's pride or disturbing your patients.

- Treat your employees as you'd like to be treated: with respect. It's the same golden rule you've heard all your life, and it works. Don't forget that your employees act as a referral source to the community, and the way they're treated—good or bad—*will* be passed on to their friends.

- Take care of problems right away. The longer you put off discussing a situation, the worse it will become. Have open communications with your employees so

you can confront problems as they arise instead of letting them fester.

- Look like the professionals you are. Wear nametags to help your patients connect names and faces. Dress professionally in uniforms—jeans have no place in any office.

- Recognize your employees for doing their jobs well. Recognition can be as simple as writing a quick thank-you note; it can also be as elaborate as an employee appreciation week with a special lunch—such as pizza, a salad bar, or ice cream sundaes—served each day. The physician is the key to employee morale, and small gestures of appreciation can go a long way. Send flowers on Secretary's Day, recognize birthdays, do things socially as a group, and include spouses and dates. These ideas will help foster an environment of friendship and cooperation.

- Set goals and offer rewards. Offer rewards to employees such as dinner out or a vacation day as a reward for a job well done. Encourage them to attend professional seminars. Their enthusiasm will be visible to your patients, and your staff will appreciate the perks.

- Encourage continuing education. Promote classes and associations that will help your staff members grow and develop. You'll benefit from the well-educated, motivated employees.

- Ask for your employees' input. Once a month, sit down with your staff and ask for their suggestions, complaints, and questions. They have insights you don't have, and are as interested as you in seeing your practice succeed. Implement their ideas when you can, and when you can't, explain why. Creating a positive work environment will keep employee morale high—something that will be visible to your patients.

Please share with us any helpful information that your office uses in employee interaction. The Tennessee Medical Association is here to serve you and, in turn, help you establish better relationships with your employees and patients.





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# Noninvasive Diagnosis of Carotid Artery Disease: The Oak Ridge Experience in Stroke Prevention

DAVID STANLEY, M.D.; DAVID LONG, M.D.; FRANCES CROSS, M.D.; JOSEPH METCALF IV, M.D.; LOUISE RYAN, R.N.; PAT WIDENER, R.N.; and DAVID DRUM, PA-C

## Introduction

It is now accepted by the medical community that carotid endarterectomy, in the hands of surgeons with documented low perioperative mortality and morbidity, plays an important role in the prevention of carotid origin strokes. Thus accurate, safe, and inexpensive diagnostic tests on which vascular surgeons can base recommendations for treatment are critically important.

Arteriography is accurate but involves moderate patient discomfort, expense, risk of renal failure, and a small risk of periprocedure stroke. Fortunately, at the Methodist Medical Center of Oak Ridge, carotid artery duplex ultrasound studies provide enough information on which to base need for arteriography, and, in many patients, to proceed with surgery without an arteriogram.

Since 1985, the Vascular Diagnostics Center of Oak Ridge has performed more than 8,300 carotid artery duplex ultrasound studies. These studies consist of duplex imaging, spectral analysis, and periorbital Doppler examinations. The studies are performed by registered vascular technologists and interpreted by vascular surgeons. Since August 1986, the Vascular Diagnostics Center of Oak Ridge has conducted a study on the accuracy of its ultrasound studies versus arteriograms.

## Methods

Four hundred thirty-nine patients had either duplex ultrasound, or carotid arteriograms or both, and subsequently underwent carotid endarterectomy. Six patients had arteriograms only before surgery, while 62 patients had ultrasound studies only. The "gold standard" was the plaque specimen carefully measured by graded dilators and calipers in the operating room at the time of plaque removal. All ultrasound studies, arteriograms, and operative reports are then periodically reviewed by surgeons and technologists for accuracy and quality control. The ultrasound and arteriogram findings are counted as correct if they are within the same clinical treatment category. The clinical treatment categories

TABLE 1

ACCURACY OF NONINVASIVE CAROTID ARTERY TESTING VERSUS ARTERIOGRAMS—VERIFIED BY OPERATING ROOM MEASUREMENTS

	Correct	Incorrect	Total	Accuracy*
Duplex scans	407	26	433	94.00%
Angiograms	349	28	377	92.57%

\*Combined accuracy is 98.86% (five patients had incorrect arteriograms and duplex scans).

are graded as follows: grade 1: 0 to 20% grade 2: 20% to 75%; grade 3: 75% to 99%; grade 4: Occluded.

## Results

Through June 1991, the carotid artery duplex scans had a 94% accuracy, while arteriograms showed 92.57% accuracy. Combined accuracy was 98.86% (Table 1).

## Conclusions

In our experience at the Methodist Medical Center of Oak Ridge, noninvasive carotid artery studies have given enough information to proceed with carotid endarterectomy in a large but selected group of our patients. Specifically, those patients with critical asymptomatic stenosis, typical hemispheric transient ischemic attacks, or strokes are in this group. Patients with atypical symptoms or evidence of significant aortic arch disease have benefited from arteriography. Careful neurologic examination, CT head scans, and other appropriate preoperative medical evaluation is always an important part of our workup.

As data similar to ours continue to accumulate, we are confident that our experience will be duplicated in other centers. At the present time, insistence by third party payors that patients with carotid stenosis have arteriograms before payment is approved, is expensive and increases morbidity in some patients. Duplex examinations by a vascular center that has demonstrated accuracy should be recognized as equal in selected patients to arteriograms for proof of disease.

Reprint requests to University Surgeons of Oak Ridge, P.C., 988 Oak Ridge Turnpike, Suite 350, Oak Ridge, TN 37830 (Dr. Stanley).



# Caring for Ruby

B.C. COLLINS, M.D.

Ruby had lived alone for more than a decade when she chose us as someone special to take full control of her affairs. She was legally blind and had very severe arthritis in nearly every joint in her body. In spite of these limitations she had been self-supporting all her life, starting in her first job as a teenager and then securing employment in Memphis at the American Snuff Company. She worked there long enough to be awarded several gold pins, and in 1966, her 47th year at the company, she was given a gold pin with diamonds and an engraved gold watch.

Ruby liked to reminisce about her experiences in the workplace. One time I asked her if her fellow workers, mostly women, were gentlefolk and soft-spoken; she replied that the men from the Millington Naval Base came to the Snuff Factory to learn how to use language befitting sailors.

I continued to visit Ruby at her home long after my other patients had switched to hospital emergency rooms for their treatment after office hours. As time went on I found myself doing little extra chores when I made a home visit. She was fond of glazed doughnuts and buttermilk and I was often instructed to bring such when I made a home call for her.

Ruby had remained childless by choice; her nearest relatives were one cousin and his son. As she became more disabled and the relatives, through their own physical disabilities and occupational duties, were unable or unwilling to do all the things that were needed, she began to rely more and more on my filling in for the managing of her personal and business affairs.

Christmas day in 1987 was cold, and it was raining. Being concerned about Ruby, I called her at her home, to find that water under the floor from the heavy rain had disabled her heating system. Her telephone was also partly nonfunctional, as it would not transmit any message out, though it retained enough function to receive incoming calls. Unable to call out she was very happy when I called her. We replaced the telephone with a new one and got the house warm again. It may have

been at this point that she, *de facto*, adopted us, and from then on depended more and more on our help.

Ruby's arthritis became so severe after her 87th birthday that any movement, even crossing a room, was so difficult that I would telephone her before going to visit to allow her a five to ten minute interval to go from her chair or bed to the front door to unlock it for my entry.

She was planning to have a duplicate key made for me, but never got around to it when, on April 30, 1988, while on the way to open the door she fell and broke her left arm. She was lying on the floor near the door when I arrived. She informed me of her plight and I assured her that I would quickly return with the necessary tools to force the door open.

In the emergency room at St. Francis Hospital, an x-ray revealed a fracture of the left humerus just below the shoulder joint. I consulted one of my friends, a big orthopedist, who took charge and applied a hanging cast. Ruby could not understand why the cast was on her arm and forearm below the break. I was unable to explain this to her satisfactorily and suggested that she ask the doctor who had placed the cast. Ruby's reservation about this procedure was sound, as the fracture was unstable and an intramedullary pin had to be inserted a short time later. She very slowly improved after this, but never regained the ability to care for herself or to live alone. Ruby was well aware of her failing abilities, and, consequently, gave me her checkbook and instructions for handling all of her business affairs.

When Ruby was discharged from the hospital it was necessary that a suitable live-in companion be employed. I would spend an hour or two almost every day in finding and hiring someone, and then she would be fired by Ruby that night. Good and efficient help was very difficult to obtain; the attendants would want things, and even demanded that the room temperature be of their choice, completely ignoring the wishes of the patient, who felt that she was losing all control in her own home.

After a week or so of increasing frustrations at home, Ruby finally agreed to go to Resthaven Nursing Home. She continued to be unhappy with the nursing

Reprint requests to 3144 Summer Ave., Memphis, TN 38112 (Dr. Collins).

staff there and would have fired them also if she had been able to. My wife and I visited her every day, and it was obvious that our visit was the time she looked forward to. Her left arm gradually improved, but she never regained the ability to walk, or to feed or care for herself in any way. To supplement her caloric intake I inserted a nasogastric tube, which was very difficult in her case, as a throat operation of some sort about 60 years earlier had healed with extensive scar tissue. Ruby did not tolerate the NG tubes, and promptly removed them, completely ignoring my exhortations in this matter. By using the "Luther Loop" technique I was able to have the tube remain in for about two weeks. Although her hands were so crippled that she could scarcely do anything for herself, she was able for this occasion to untie a dozen hard knots and remove the tube. She said that she had spent most of the night getting the tube out. We never reinserted it.

Ruby enjoyed our visits very much, and the ice cream we brought her probably contributed from one-fourth to one-third the calories she received each day. She would savor the ice cream and eat it slowly to prolong the visit, and often after it was finished she would have an additional request or two. Often she would say: "Tell me an Indian story," since her ancestry had contributed some Indian blood to her gene pool. One story I told her was that of a young Sioux Indian who grew up in South Dakota and joined the Navy during World

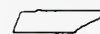
War II. During that time he had the opportunity to further his education, and in time became a certified electrician. Following his discharge he returned home, as the REA had made electric power available, and he was the first Indian to wire a head for a reservation.

If we helped Ruby in her last years and brought a little comfort and cheer to her, we also benefited from her sharing her times and experiences with us. She had many stories and anecdotes about her long life of working and fishing. Of the latter she had several large mounted specimens, and numerous photos showing nice strings of crappie and bass.

We visited Ruby daily for the two years and three months that she was in the nursing home. On one occasion she was asleep when I arrived and left without awakening her; I was duly instructed the next day that I was not to do that again. She could be quite expressive and transmit her thoughts very clearly when she felt the need for doing so.

Why did we make Ruby a special case? She needed help, and we were the only ones capable and willing. She was very grateful for our care and we enjoyed her company and the time we spent with her. Medicare paid for one visit a month; we did not charge Ruby for any of the other 29 or 30 visits. She in turn enriched our lives, and also made us the beneficiary of her estate and portfolio.

We still miss our visits with Ruby.



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HOWARD L. SALYER

## *Reflections On the Past . . . Visions of Today*

When I first opened my practice 30 years ago, there were two people in the examining room—the physician and the patient. Once the patient came in to see the doctor, these two people carried on a conversation: the medical problems were discussed, a diagnosis was determined, the treatment was prescribed, and the physician worked with the patient to set up mutually agreeable fee structures and payment plans. Medicine was a profession . . . not a business.

Things certainly have changed.

Today, the examining room is quite crowded. Not only is there the patient and the physician, there is also the state government and the federal government (in the forms of Medicare and Medicaid), the insurance companies and a multitude of other “interested parties” who are telling me how to treat the patient, when to treat the patient, where to treat the patient, and how much time I have to treat the patient before insurance coverage and other issues come into play. Today, medicine is a business . . . not a profession.

Of course, things are not all bad. Technologic advances have brought hope to physicians and patients by giving us the resources needed to treat and cure those individuals who might have otherwise had no chance of recovery, and I’m very thankful for the talents of those individuals in the research laboratories who have made this possible.

However, I can’t help longing for the old days when the patient and the physician carried on a conversation that was not interrupted by issues of insurance and governmental regulations, but was instead punctuated by medical expertise offered with gentleness and understanding of the person, not just the problem. Maybe—just maybe—we will be able to return to having just two people in the examining room. I seriously doubt it, but it never hurts to hope.

*Howard L. Salyer M.D.*

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**FEBRUARY, 1992**

# **editorials**

## **A Valentine for You**

I'm not big on Valentines, and in fact I seldom do more than tip my hat in acknowledgement of the existence of the day. At the same time, I have no more against the sentiments involved than I have against motherhood, apple pie, and the flag; I clasp them all to my bosom. Neither do I denigrate St. Valentine, the patron of the day. I try not to be curmudgeonly

about it, but you may get the idea before I'm done that I didn't try very hard. This is designated as being a Valentine simply because it is the time of year for it. That's about all the comfort you'll derive from this, as it is not a happy piece. In fact, there is little to be happy about here, but there is a little, hence the Valentine. You'll find out more about that later on.

The reason for writing this at all is to inject a note of caution. The biggest criticism of President Bush, according to the polls, is that his focus is too far away from the end of his nose. We need to be careful that we don't fall into the same trap. Charity, they say, begins at home, and it may not be at all inappropriate, in view of the present situation at home, to start it close to your vest—indeed, inside it.

By this I do not mean to imply that the RBRVS and associated federal miseries inflicted on us and our patients by HCFA do not deserve our attention. Nothing could be farther from my intentions. It is just that we shouldn't be single-minded about it, considering the exigencies creeping up on us from behind—at least I think it's from behind. It is creeping up from whatever direction is not receiving its fair share of our attention. The villain in this particular scenario is a skulking, manifestly untrustworthy state administration that is trying to blind-side the health care providers of the state to rectify its own profligacy and that of a generation of improvident legislators noted for robbing Peter to pay Paul, to coin a phrase.

In case this piece be viewed as self-serving (as it likely will be by some—maybe by everybody but us, and maybe by some of us), I would suggest that instead of being self-serving, it is only self-preserving, which is neither immoral nor unethical, particularly considering that if the administration and some in the legislature have their way, it is the public—our patients—who will ultimately bear the brunt of that legislative and administrative malfeasance.

Before I go any further, I need to set the record straight on something. It is customary for elected officials, and usually their minions, as well, to refer to themselves, in a rather self-laudatory fashion, as public servants. In reference to this, my favorite newsman, Paul Harvey, recounted the following anecdote. It seems that while watching his father load the old sow into their truck, a small boy became concerned that he might be witnessing the beginning of the sow's end. Not so, his father assured him. Down the road lived Farmer Brown, who had a prize boar; "I'm taking the sow down there to be served," he said. Some days later the boy watched again as their cow was being loaded into the truck. To reassure him that he would bring the cow back, his father said,



"Farmer Jones had a bull, and I'm just taking Bossy over there to have her served." "I tell you this," said Mr. Harvey, "just so that the next time somebody tells you he's going to Washington (or Nashville, as the case may be) to serve you, you'll know what he's going to do."

That would not be a bad place to stop, but first I need to be a little bit more specific. It's no news that our state government is low on funds; that is a chronic problem Tennessee has in common with a lot of other states. Tennessee's schools are in rather dire straits, partly because of that and partly for other reasons. The present administration, to hear them tell it, has numbered education as its first priority; the governor has proposed a state income tax strictly to fund education, and nothing else. The problem he has is that nobody believes him. So as to be sure that the tax is forced on the people, the only budget to be cut for the next fiscal year is the education budget. The people aren't buying it. And why should they?

The sales tax was increased to fund schools; the money went into the general fund, and the schools never saw it. The doctors of the state have accepted several increases in the medical license registration fee so that the licensing board could investigate "bad" doctors. The administration put the money in the general fund, and infractions still go largely uninvestigated. I could go on and on, but every group in the state can think of other misappropriations unassisted. The voters have steadfastly refused tax increases for education (and everything else), and have served notice that they will not accept an income tax until earmarked funds are removed from the discretionary control of the administration.

Such things affect us all, either directly or indirectly, but there are some other pressing items that affect us and our patients more directly. For various reasons, mostly having to do with HCFA decisions stemming from a huge federal Medicaid deficit, and with a shortfall in projected state income, which I shan't go into any further here, the money supply for Medicaid is dwindling; this means that there will be no increase in Medicaid payments again this year, which is probably not news to you. That's in the first place. In the second, the Tennessee Comprehensive Health Insurance Pool (TCHIP) is seriously underfunded, and has developed a whopping deficit. The state is looking to the health care industry to make up the difference. So far as TCHIP is concerned, the insurance industry has been bearing most of the financial burden, but it is looking for relief. The state has proposed an increase of \$250 in the medical license registration fee as medicine's "fair share," but thus far our (TMA's) efforts to block that as being

inappropriate have been successful. You can bet that will be back again in the next session of the legislature, which will be in full swing by the time you read this.

What else is in the hopper this time is a gross receipts tax on providers of health care to make up the deficit in Medicaid. Thus far the hospitals have been largely picking up the tab for that, but such creative funding has been declared illegal by HCFA, it seems because matching such funds is straining HCFA's resources. (It escapes me how the mechanism the state uses for funding makes any difference. It is not hard to get the impression HCFA is just opposed to state programs having any money so that HCFA won't have to give them any; down the tube for Medicaid.) Since this proposed gross receipts tax would be levied on health care providers alone, we cannot look for help from other professions, and will be on our own. There is again no assurance, of course, that such funds will be used for Medicaid, since they will go first into the general fund, and thus be subject to the creative accounting skills of this present administration; to be fair, such skills are not unique to this administration, and indeed are quite commonly found at all levels of government everywhere, for that matter. That is small comfort, though, in the present situation.

If there is anything to cheer about in all this, it is the efforts the TMA makes in our behalf. Those of you who are always asking what has TMA done for you lately need to take note of the activities of your Legislative Committee under the chairmanship of Charles White, M.D., from Lexington, our lobbyist, Charlie Cato, and our administrative assistant for Legislation, Mark Greene. All are highly knowledgeable, and are well respected on the hill. What each one of you can do to help is become knowledgeable yourselves, and put the heat on your legislators; you can bet our competition does that, and does it very effectively.

Now that your attention has been refocused on things closer to home than HCFA and the Senator from Massachusetts, I'll let you in on what seems to be among the world's best-kept secrets, though why it should be a secret at all certainly does escape me. It is that if you want to be *really* effective, you should get your patients involved, as the doctors in one of our counties did. By so doing they succeeded in having a bill they disliked withdrawn from the hopper. They did it by putting out in their waiting rooms information that convinced their patients that the bill was not in their own best interests; the patients did the rest.

Your patients need to be persuaded that the gross



receipts tax will simply require the creation of another expensive bureaucracy, the budget for which will be charged to health care. This will further increase the cost of care, and therefore the cost to the patients, with no added benefits. Take a lesson from those innovative colleagues of yours, and see that your legislators are flooded with phone calls and letters—not just yours and your auxiliaries', but those from your patients. That, I should think, would be guaranteed to get their attention.

By the way, as an aside, did you know there are more than 200 utilization review entities operating in Tennessee? And that many of them, as you have doubtless discovered, are totally inept? And people wonder where the health care dollars go.

As to the Valentine, well, I'll let you decide from what I've said to whom it should go. That shouldn't pose too much of a challenge for you. I'll give you a hint. It certainly doesn't go to HCFA, the Senator from Massachusetts, or the Governor of the great state of Tennessee.

So, Happy Valentine's Day! With a little work, you too can be a Valentine. (For instructions as to how, see above).

J.B.T.

## Peek-a-Boo—I See You!

Children have to function under a variety of authorities, having at the same time little authority of their own, generally speaking. Someone—nearly everyone, as I remember it—is forever telling children what to and what not to do. Children are also forever being required to participate in some activity or other, and it seems, if my grandchildren are typical, that the opportunities have vastly expanded since my own childhood. This is neither an apology for nor an indictment of that; it is simply an observation.

For adults, though, once military requirements are satisfied, and provided they can stay out of jail, most of the requirements are for omission; there are really very few for commission, and the majority of those are a tradeoff—so as to stay married, for instance, or hang on to a job. Adults are *required* to participate in almost nothing otherwise.

I was reminded this morning of an anecdote of Paul Harvey's. It is one that he tells as true, and since it exemplifies human nature to perfection, and Mr. Harvey is a truthful man, I have no reason to think it otherwise. It seems a woman called the police to protest the indecent exposure of an across-

the-alley male neighbor, who, she reported, shaved himself each morning unclad. She was, she reported, deeply offended by his nakedness, and wanted it stopped. The police duly arrived next morning to witness the dereliction, only to find that the bathroom window curtains were drawn so that only the upper part of the man's body was visible. Was this, they asked, the way it was every morning? It was, she replied. But, said the officers, they could see less of him there than they could on any beach. "Oh, but Officer," quoth our offended lady, "if you stand on tiptoe on this chair, you can see all of him."

What reminded me of that was the comments of a columnist in our newspaper this morning in which she was speculating on the aftereffects of a program that Madonna had put together being aired so soon after the showing last week of a program of Michael Jackson's that has been variously labeled risqué, filthy, and obscene. I can't comment, as, not being one of Mr. Jackson's admirers, I didn't see the allegedly questionable production in question. Fox, which carried it, was led to recognize its error in having done so, and apologized. Later on this week ABC will carry Madonna's program, one that a lot of people seem to think will be another risqué (read dirty, or obscene) performance, Madonna being nothing if not controversial; she also knows a good thing when she sees one. ABC has previewed the taped show, and its censors have ruled that, though ABC will go further this time than it has ever gone before, all is still well. The columnist commented that if that turns out not to be so, ABC can always apologize. It is, she said, a win-win situation, in which the performers and the networks all get their loot, the networks apologize, and all are, at least in theory, forgiven. Nobody is out anything, except, of course, the offended viewers.

Now I am certainly not opposed to cleaning up the airways, since there sure enough is too much trash out there in them; certainly a lot of that trash is related to sex. A lot of it is also not. Too, there is still a lot more trash out there that is *not* on the airways; much of it even passes as "just the news," both over and under the airways. And then there are the "soaps," to which a lot of the offended, not to mention the unoffended, parties are addicted; Madonna has little if anything on them.

But when we're talking about cleaning it all up, we're talking about mopping up where the *big bucks* are, friends, and things are tight these days, or maybe you haven't noticed. The TV executives have noticed, though, and I have a life-sized picture of their rejecting that sort of jack just to further cleanliness, which after all is only in the eye of the be-



holder, and not theirs. To change that notion would take a massive and unprecedented viewer reaction. There was such a one to Mr. Jackson's performance, in which the network received, the columnist avowed, tens of thousands of letters of protest, causing the network to apologize. (She didn't say whether or not they promised not to do it again. Wanna bet?)

Letters, though they may help, just won't get the job done. I don't know about yours, but my TV has an on-off switch on it; not only that, I, along with almost everybody else who owns a TV, have a remote control that will switch channels at the merest touch. If enough folks would stop standing tip-toe on their chairs, *that* would get the attention of the powers that be. Nothing else short of not buying their sponsors' products will, and to boycott all the sponsors of trash would likely put the whole country out of business.

Not to worry, though; as the bootleggers used to say, folks always vote dry but drink wet.

J.B.T.

#### MAURY COUNTY MEDICAL SOCIETY

*Gelyon Lee Harris, M.D., Columbia*

#### MONTGOMERY COUNTY MEDICAL SOCIETY

*Michael D. Hooker, M.D., Clarksville*

#### ROANE-ANDERSON COUNTY MEDICAL SOCIETY

*William John Black, M.D., Oak Ridge*

*Steven Lloyd Sterling, M.D., Oak Ridge*

#### SUMNER COUNTY MEDICAL SOCIETY

*Michael C. Diaz, M.D., Hendersonville*

*James Robert Gillespie, M.D., Hendersonville*

## personal news

*James G. McMillan, M.D.*, Jasper, was recognized for his 50 years of medical service to the community when the Jasper City Park was dedicated in his honor. At the dedication ceremony, spearheaded by the Greater Jasper Jaycees, "Dr. Mac" was presented with a plaque, stating in part that he "has been a source of strength, wisdom, and encouragement to his patients, their families, and his community."



*Eugene Park Niceley*, age 89. Died November 28, 1991. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

*Kenneth Guysteau Ross*, age 72. Died November 17, 1991. Graduate of University of Tennessee College of Medicine. Member of Henry County Medical Society.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

#### CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

*Richard A.K. Chaffoo, M.D., Hixson*

*Samuel M. Currin, M.D., Hixson*

*Robert F. Marcum, M.D., Hixson*

*Terry Melvin, M.D., Chattanooga*

#### CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

*Twyla M. Twillie, M.D., Jackson*

### TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during November 1991. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1.

*Consolacion Cancio, M.D., Memphis*

*James W. Hays, M.D., Nashville*

*John P. Hendrick, M.D., Cleveland*

*Robert E. Northrop, M.D., Kingsport*

*Takis Patikas, M.D., Nashville*

*Horace E. Watson, M.D., Nashville*

# announcements

## CALENDAR OF MEETINGS

### NATIONAL

- March 1-5 American College of Nuclear Physicians—Le Meridian, San Diego
- March 1-5 Association for Hospital Medical Education—Cloister, Sea Island, Ga.
- March 4-7 Association for Academic Psychiatry—La Mansion Del Rio, San Antonio
- March 6-11 American Academy of Allergy and Immunology—Marriott, Orlando
- March 8-11 American Institute of Ultrasound in Medicine—Marriott Hotel & Marina, San Diego
- March 8-12 US Pharmacopoeial Convention—J.W. Marriott, Washington, D.C.
- March 11-15 American Association of Anatomists—Hilton, New York
- March 11-15 American Society of Dermatologic Surgery—Princess, Scottsdale, Ariz.
- March 13-15 American College of Nuclear Medicine—Sheraton, New Orleans
- March 14-20 US and Canadian Academy of Pathology, Inc.—Marriott Marquis, Atlanta
- March 18-20 American Society for Clinical Pharmacology and Therapeutics—Peabody, Orlando
- March 18-22 Society for Adolescent Medicine—Omni Shoreham, Washington, D.C.
- March 21-24 American College of Preventive Medicine—Stouffer Harbor Place, Baltimore
- March 22-26 American College of Surgeons—Peabody, Orlando
- March 26-28 American College of Legal Medicine—Del Coronado, San Diego
- April 1-3 American Group Practice Association—J.W. Marriott, Washington, D.C.
- April 1-4 American Association of Suicidology—Westin, Chicago
- April 1-4 American Burn Association—Marriott, Salt Lake City
- April 1-4 American College of Physicians—Washington, D.C.
- April 2-4 International Society for Heart & Lung Transplantation—Marriott, San Diego
- April 2-5 American Society for Addiction Medicine—Ramada Renaissance Techworld, Washington, D.C.
- April 4-8 American Society of Clinical Hypnosis—Riviera, Las Vegas
- April 4-9 American Society of Clinical Pathologists—Sheraton, Boston
- April 4-9 College of American Pathologists—Sheraton, Boston
- April 5-8 American Society of Abdominal Surgeons—National Study Center for Continuing Medical Education, Tampa
- April 5-9 American Association of Pathologists—Hilton, Anaheim, Cal.
- April 5-10 American Physiological Society—Marriott, Anaheim, Cal.
- April 8-12 International College of Surgeon, US Section—Fairmont, Chicago
- April 11-12 American Laryngological Association—Marriott Desert Springs, Palm Desert, Cal.
- April 11-15 American Radium Society—Walt Disney World Swan, Orlando

- April 11-16 American Association of Neurological Surgeons—Marriott Moscone, San Francisco
- April 12-15 American Society of Contemporary Ophthalmology—Drake, Chicago
- April 12-15 American Society of Contemporary Medicine and Surgery—Drake, Chicago
- April 12-15 North American Primary Care Research Group—Omni, Richmond, Va.
- April 12-16 American College of Cardiology—Dallas
- April 14-16 American Laryngological, Rhinological and Otolological Society—Marriott Desert Springs, Palm Desert, Cal.
- April 22-26 American Society of Head and Neck Radiology—Inter-Continental, Chicago
- April 23-26 Wound Healing Society—Richmond, Va.
- April 25-29 Society of Teachers of Family Medicine—Adam's Mark, St. Louis
- April 30-May 3 American Academy of Psychoanalysis—Vista International, Washington, D.C.

### STATE

- April 2-4 North American Society for Pediatric and Adolescent Gynecology—Nashville
- April 8-11 Tennessee Medical Association, 157th Annual Meeting—Opryland Hotel, Nashville

## Tennessee Chapter of AAP Receives Outstanding Chapter Award For Medium Chapters

The Outstanding Chapter Award for medium chapters of an American Academy of Pediatrics chapter recognizes outstanding achievement of a chapter with 121 to 299 members. Sponsored by Wyeth-Ayerst Laboratories, the award consists of \$2,000. The Tennessee Chapter of the American Academy of Pediatrics was the 1991 recipient of the award. In part, the chapter was recognized for its efforts to ensure universal access to primary care. The cornerstone of those efforts is the volunteer Medical Home program. In addition, the chapter was honored for its efforts to recruit more physicians to treat underserved populations.

## REWARD

A rewarding experience awaits those physicians who plan to attend the Tennessee Medical Association's 157th Annual Meeting—April 8-11, 1992, at the Opryland Hotel in Nashville. Mark your calendar NOW so you won't miss out.





BALTIMORE

## Being a patient advocate is what being a physician is all about."

Dr. Kevin Fullin, Cardiologist, Kenosha, Wisconsin, Member, American Medical Association

Why would a cardiologist get involved in the issue of family violence? Perhaps, because what he saw simply cried out for action.

"Fully a third of all women's injuries coming into our emergency rooms are no accident," says Dr. Fullin.

While others were content to downplay the issue of family violence, Dr. Fullin would not. He petitioned state officials, and through his efforts the first Domestic Violence Advocate Program in his state was created.

"Organized medicine must serve as an advocate for patients," stressed Dr. Fullin.

The American Medical Association (AMA) couldn't

agree more. We're committed to focusing physician attention on the issue of family violence.

You are invited to join Dr. Fullin and to join with him in his efforts to bring quality health care to those in need. Become a member of the American Medical Association today.

Members of the AMA are encouraged to join their state, county and specialty societies.

**American Medical Association**

Physicians dedicated to the health of America

**Call TMA in Nashville at (615) 385-2100**





# American Medical Association

Physicians dedicated to the health of America



## For Your Benefit

Materials included are excerpted from *Member Matters*, a monthly publication sent to all members of the American Medical Association. *For Your Benefit* is provided by the American Medical Association.

### Thanks to You for Your Unprecedented Support!

Six months ago, the AMA leadership asked you to express to the Administration and to Congress your objections to proposed regulations designed to implement the new Medicare physician payment system. Your response was tremendous!

Your unprecedented grassroots effort was the key in the RBRVS conversion factor campaign that produced significant improvements in the final regulations. Your contacts with members of Congress convinced 322 Representatives and 51 Senators to cosponsor corrective legislation. Your 100,000 letters convinced the Health Care Financing Administration to restore \$10 billion that would have been cut under the proposed rule. The conversion factor campaign produced substantial gains for ALL physicians. The political base of support generated this year will benefit the profession throughout the RBRVS transition.

But, our greatest accomplishment stems from the cohesive, unified effort that you and your fellow AMA members put forth on an issue that critics said would divide us.

As your AMA leaders, we want to express our gratitude to you for demonstrating the strength and vitality of our organization. Your letters, phone calls and personal visits directed to this effort provide an invaluable foundation for addressing the challenges that lay ahead.

Your efforts count. You make it work. You make us proud to serve you.

Sincerely,

John J. Ring, MD, President  
Joseph T. Painter, MD, Chairman,  
Board of Trustees  
James S. Todd, MD, Executive Vice  
President

### AMA Awarded Grant to Study Home Care

The U.S. Administration on Aging awarded the AMA's Department of Geriatric Health a \$100,000 grant. This federal grant funds the development of programs to train physicians to manage health care for the home-bound elderly

patient. State medical associations in Arizona, Illinois, Maryland and Texas will help coordinate a total of eight clinical seminars for practicing physicians.

### AMA Backs "HEAL-ing" Loans

In a recent letter to Congress, the AMA stressed its continued backing for reauthorization of the Health Education Assistance Loan [HEAL] program. The AMA underscored that HEAL has made it possible for thousands of highly qualified people to enter health and medical professions

who otherwise might be unable to consider these careers. With the growing need for inner-city communities to attract dedicated physicians, HEAL's greatest impact has been as a partial funding source for minority students.



# AMA: Ensuring the Future Through Medical Research



Five



Issues



In



American



Health

The AMA believes that medical research is absolutely essential to maintain and improve the health of all Americans. 77% of Americans agree.

In the past, through the efforts of medical research teams working long hours in labs — NOT by quick breakthroughs — building on one another's victories, and testing and retesting theories, research led to life-saving drugs, technologies and procedures such as insulin, Hepatitis B vaccine, CAT scans, chemotherapy, as well as many others that you use in your daily practice.

Today, biomedical research is both the cornerstone of medical practice and its new frontier. Exponential advances in molecular diagnosis and human gene research bear both the sweet and bitter fruit of new therapy and ethical dilemma. Research partnerships are shifting from federally-funded agencies to for-profit corporations. Complex relationships between hospitals, universities, medical centers, corporations and the government are difficult to keep in alignment.

Just what are the significant bottlenecks?

- Tenuous federal funding that hampers recruiting and retaining research physicians and laboratory scientists; and
- Animal "rights" extremists whose violent protests vandalize research centers, private corporations, medical schools and private homes.

How do they hamper progress?

- Inadequate funding means that approved projects often cannot get funds, or, once funded, lack monies to complete projects.
- Inadequate funding also means fewer medical students choose research as a career because their student debt makes this lower-paying job impractical. This is critical because only physicians ask the most pertinent questions.

Through the lens of special interests, animal activists ignore the fact that virtually every medical advance in the 20th century directly or indirectly involved the use of animals. This research linked cholesterol and heart

disease, developed open-heart surgery and microsurgery, brought about the use of non-addictive pain-killers, and produced commonly used vaccines for measles, rubella, tetanus, mumps and DPT.

By limiting animal research and lobbying for more restrictive laws, animal activists have succeeded in banning the use of animal research in some states. Their tactics have driven scientists from the medical research field and needlessly increased the cost of research by billions of dollars.

What is the AMA doing to close the gap?

Today, the AMA:

- petitions Congress to spare medical research from budget cuts, and opposes legislation that limits medical research.
- supports funding for the National Institutes of Health.
- backs the "Research Protection Act", passed by the Senate.
- urges student loan forgiveness and forbearance to encourage students to choose medical research rather than more immediately financially rewarding fields.
- publishes guidelines that examine the physician's relationship with private research corporations.

What can you do?

- Support medical research through your contributions to reputable voluntary health organizations — such as the AMA.
- Be aware of the background and goals of organizations you support.
- Ask your political representatives to vote against local, state or federal legislation that hampers medical research.

The AMA is committed to dealing with these complex relationships and to keeping these shifting partnerships focused on the benefits of biomedical research.

Why? The AMA knows that through biomedical research, we save human lives, lessen human suffering and advance our scientific understanding. The potential benefits to human health cannot be measured.



# A#



**NEW INDICATION**

## ONLY ONE H<sub>2</sub>-ANTAGONIST HEALS REFLUX ESOPHAGITIS AT DUODENAL ULCER DOSAGE. ONLY ONE.

Of all the H<sub>2</sub>-receptor antagonists, only Axid heals and relieves reflux esophagitis at its standard duodenal ulcer dosage. Axid, **150** mg b.i.d., relieves heartburn in **86%** of patients after one day and **93%** after one week.<sup>1</sup>

**AXID**<sup>®</sup>  
nizatidine  

---

150 mg b.i.d.

**ACID TESTED. PATIENT PROVEN.**



# AXID<sup>®</sup>

## nizatidine capsules

**Brief Summary.** Consult the package insert for complete prescribing information.

**Indications and Usage:** 1. *Active duodenal ulcer*—for up to 8 weeks of treatment at a dosage of 300 mg h.s. or 150 mg b.i.d. Most patients heal within 4 weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a dosage of 150 mg h.s. at bedtime. The consequences of therapy with Axid for longer than 1 year are not known.

3. *Gastroesophageal reflux disease (GERD)*—for up to 12 weeks of treatment of endoscopically diagnosed esophagitis, including erosive and ulcerative esophagitis, and associated heartburn at a dosage of 150 mg b.i.d.

**Contraindication:** Known hypersensitivity to the drug. Because cross sensitivity in this class of compounds has been observed, H<sub>2</sub>-receptor antagonists, including Axid, should not be administered to patients with a history of hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chloridazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A 2-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a 2-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a 2-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in 1 fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in 1 fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Worldwide, controlled clinical trials included over 6,000 patients given nizatidine in studies of varying durations. Placebo-controlled trials in the United States and Canada included over 2,600 patients given nizatidine and over 1,700 given placebo. Among the adverse events in these placebo-controlled trials, only anemia (0.2% vs 0%) and urticaria (0.5% vs 0.1%) were significantly more common in the nizatidine group. Of the adverse events that occurred at a frequency of 1% or more, there was no statistically significant difference between Axid and placebo in the incidence of any of these events (see package insert for complete information).

A variety of less common events were also reported; it was not possible to determine whether these were caused by nizatidine.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to 3 times the upper limit of normal, however, did not significantly differ from that in placebo patients. All abnormalities were reversible after discontinuation of Axid. Since market introduction, hepatitis and jaundice have been reported. Rare cases of cholestatic or mixed hepatocellular and cholestatic injury with jaundice have been reported with reversal of the abnormalities after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in 2 individuals administered Axid and in 3 untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of anti-androgenic activity due to nizatidine. Impotence and decreased libido were reported with similar frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Anemia was reported significantly more frequently in nizatidine than in placebo-treated patients. Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Urticaria was reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. The ability of hemodialysis to remove nizatidine from the body has not been conclusively demonstrated; however, due to its large volume of distribution, nizatidine is not expected to be efficiently removed from the body by this method.

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# *Large Bowel Obstruction: An Uncommon Complication Of a Tubo-Ovarian Abscess*

BARRY RIPPS, M.D.; DAVID MURAM, M.D.; and  
HELEN T. WINER-MURAM, M.D.

## Introduction

Salpingo-oophoritis can cause irritation of the serosal surfaces of the small bowel, leading to gastrointestinal symptoms such as ileus. Being situated retroperitoneally, the large bowel is often protected, so that true obstruction is very uncommon. The following report describes a case of involvement and obstruction of the colon caused by a tubo-ovarian abscess.

## Case Report

The patient, a 30-year-old black woman, was referred for treatment of suspected uterine leiomyomata when a gynecologic evaluation revealed a large central pelvic mass. The patient had previously had a barium enema that showed rectosigmoid displacement with narrowing of the lumen but without intrinsic lesions (Fig. 1), and a pelvic sonogram revealed a pelvic mass with a lucent area, interpreted as a degenerating leiomyoma. An intravenous pyelogram showed bilateral hydronephrosis and hydroureters above the pelvic brim.

On admission to our institution, the patient reported intermittent nausea and vomiting for the previous three to four weeks and subjective fever and chills. She denied descriptions of hematemesis, melena, or hematochezia. Her last menstrual period was reported to have begun on the day of admission.

From the Departments of Obstetrics and Gynecology (Drs. Ripps and Muram) and Radiology (Dr. Winer-Muram), University of Tennessee College of Medicine, Memphis.

Reprint requests to Department of Obstetrics and Gynecology, University of Tennessee College of Medicine, 853 Jefferson Ave., Memphis, TN 38163 (Dr. Ripps).

The patient was febrile (100.4°F), with a pulse rate of 110/min. Examination revealed a distended, tender abdomen with voluntary guarding and rebound. High-pitched bowel sounds were heard. There was cervical tenderness on motion and marked bilateral adnexal tenderness. Laboratory studies showed a WBC count of 14,000/cu mm with 75% neutrophils,



**Figure 1.** Barium enema showing extrinsic compression of the rectosigmoid colon performed prior to admission.

and a hematocrit of 30%. Erythrocyte sedimentation rate (ESR) was 127 mm/hr. Stool was negative for occult blood. Urinalysis and blood chemistries were normal, and chest radiograph was unremarkable. Abdominal radiographs revealed colonic distension with air-fluid levels and a significant amount of barium retained from the study performed 12 days earlier (Fig. 2). These findings were interpreted as colonic pseudo-obstruction (adynamic ileus).

A tentative diagnosis of acute salpingo-oophoritis was made, and the patient was treated with IV antibiotics for five days, but the signs of bowel obstruction persisted. Another barium enema revealed complete colonic obstruction, and the contrast material failed to pass beyond the sigmoid colon. Sigmoidoscopy to 25 cm revealed no intrinsic lesions. Exploratory laparotomy revealed a large tubo-ovarian abscess. The anterior wall of the sigmoid colon was thickened, indurated, and incorporated into the abscess wall, but uninvolved bowel appeared to be normal. Within three days following a subtotal hysterectomy with removal of the abscess wall, the patient became afebrile and serial abdominal radiographs demonstrated gradual mobilization and expulsion of the barium. Normal bowel function returned eight days after the operation, and the patient was discharged on the tenth postoperative day.

## Discussion

This patient had acute colonic obstruction as a result of a tubo-ovarian abscess, into the wall of which the sigmoid colon was incorporated. Such direct involvement of the colon indicates that the inflammatory process had gained access to the retroperitoneal space, either directly through the peritoneal surface, or alternatively by extension through the infundibulopelvic ligament, the latter being the more likely, since the loose areolar tissue surrounding the ovarian vessels offers little resistance to spread of infection. On the other hand, other disease processes quite readily traverse the peritoneal barrier, e.g., carcinoma, endometriosis.

Such direct involvement of retroperitoneal organs by intraperitoneal infections is quite rare. Often an enlarging pelvic mass creates extrinsic compression of adjacent pelvic organs. Obstructive uropathy has been encountered when a large pelvic mass is present, e.g., abscess,<sup>1</sup> leiomyomata.<sup>2</sup> The ureters are compressed between the pelvic brim and the enlarging mass, but direct involvement of a retroperitoneal organ, as was seen in this patient, was not caused by compression. Although surgical management was required in this case, bowel resection was not necessary. Subsequently histologic examination that might have aided in the pathophysiology could not be performed.

Retroperitoneal abscesses have been reported to cause colonic obstruction, and have been described



**Figure 2.** Radiograph demonstrating air-fluid levels and persistent barium 12 days after a barium enema.

in a patient with a pancreatic abscess.<sup>3</sup> The actual incidence of large bowel obstruction caused by a tubo-ovarian abscess is unknown; a computer-assisted search of the literature for the past 23 years did not disclose any articles describing such a complication.

In summary, this case demonstrates that tubo-ovarian abscess can traverse the retroperitoneum, probably by infiltrating through the infundibulopelvic ligament. Early identification and surgical intervention are required to relieve the colonic obstruction. If the bowel wall is compromised, or the abscess communicates with the lumen of the bowel, diverting colostomy may be required.

## Acknowledgment

We thank Todd Brooks, M.D. for his assistance in obtaining information regarding this case.

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# Recurrent Appendicitis: A Valid Disease

ROBERT W. IKARD, M.D.

## Introduction

In his classic comprehensive report on the "new" illness of appendicitis, Reginald Fitz described several cases of alleged recurrent or chronic forms.<sup>1</sup> Then followed several decades during which many nonspecific abdominal maladies were treated by appendectomy. Thus, Charles Mayo reported chronic symptom relief in almost 100 such patients having appendectomy.<sup>2</sup> As indications for appendectomy were refined, reaction to this trend led to rejection of any non-acute variant of appendicitis as real disease.<sup>3</sup>

Skepticism persists about the validity of recurrent or chronic appendicitis. Those diagnoses may be addressed in passing but are usually unmentioned in medical and surgical texts. Though the problem may be imprecise semantics, descriptions of truly chronic appendicitis remain inexact and unpersuasive.<sup>4,5</sup> However, there have been several reports of *recurrent* abdominal illness relieved by appendectomy for bona fide appendicitis. Four such cases have been identified in a private practice of general surgery.

## Case Reports

**Case 1.** A 30-year-old man had four episodes of right lower quadrant pain over a 19-month interval. With each he had low-grade fever (99.9°F) and leukocytosis (WBC count 7,000 to 13,600/cu mm). Tenderness was never extreme. Various radiographs and scans were nondiagnostic. Pain, fever, and leukocytosis all increased during his last attack, and appendectomy was done. Microscopic sections showed acute, necrotizing appendicitis.

**Case 2.** A 43-year-old man had three episodes within 4½ months of right lower abdominal pain. With each there was slight fever, WBC count of 7,000 to 10,000/cu mm, and anorexia. Barium enema was normal. Appendectomy was done during the last episode. Accompanying transmural acute inflammation was a lymphohistiocytic infiltrate, suggesting chronic as well as acute appendicitis (Fig. 1).

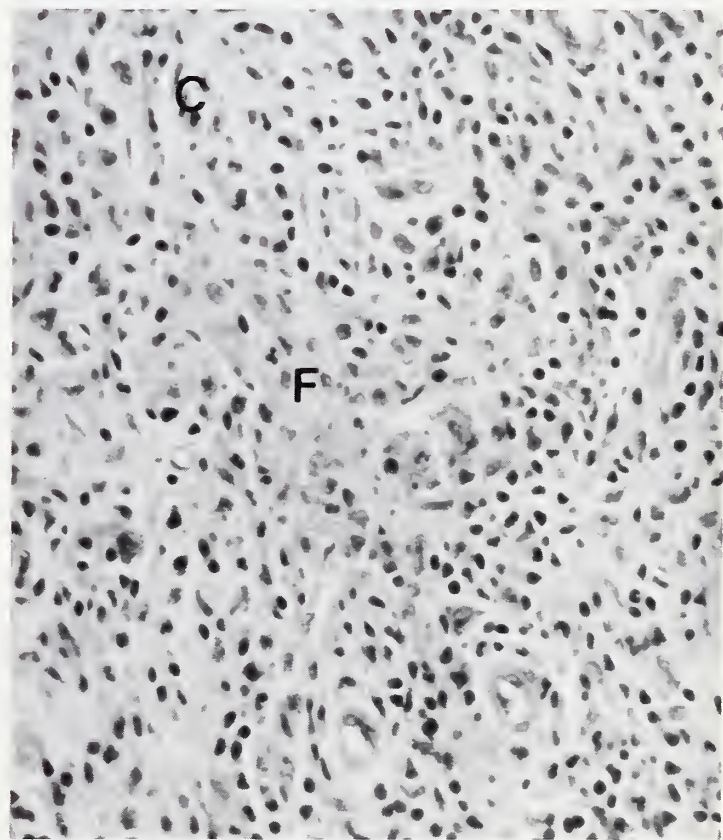
**Case 3.** For five years a 20-year-old man had recurrent episodes of abdominal pain, generally localized to the right side. They lasted several hours, and he usually required opiate analgesia; neither fever nor leukocytosis was prominent. Several radiographic studies of the upper and lower bowel were normal. Exploratory celiotomy revealed an abnormal retrocecal appendix, containing a mucocoele in a pseudomembrane. Microscopy revealed flattened mucosa, submucosal

scarring, and chronic inflammatory cells (Fig. 2). He had no more attacks of abdominal pain.

**Case 4.** Over one year a 38-year-old woman had three events of right lower quadrant abdominal pain. With the last attack, physical findings, temperature (100°F), and WBC count (11,600/cu mm) were typical for appendicitis. Microscopic sections of the removed appendix showed acute, necrotizing inflammation with wall necrosis.

## Discussion

Appendicitis is caused by a combination of infection and obstruction.<sup>6</sup> The latter is usually due to fecalith, but might be secondary to lymphoid hyperplasia, tumor, foreign body, parasite, or anatomic variance.<sup>7</sup> It is plausible that obstruction can be partial or intermittent, thus allowing resolution of infection. The phenomenon of "spontaneous healing" was identified in one-third of Fitz's cases. He concluded that recurrence was likely in this patient group.<sup>1</sup> Sub-



**Figure 1.** Photomicrograph of appendiceal wall, showing chronic inflammatory cells (C) and fibrosis (F) of submucosa and serosa (hematoxylin-eosin,  $\times 100$ ).

Reprint requests to 250 25th Ave. North, Suite 203, Nashville, TN 37203 (Dr. Ikard).



sequent reports have substantiated this theoretical prediction.<sup>8-10</sup> These cases are probably milder variants of those in which appendicitis has been treated only by abdominal drainage or incomplete appendectomy. There is considerable likelihood the disease will recur, and "interval" appendectomy is advisable.<sup>11</sup>

No clinical characteristic that might aid in diagnosis other than recurrence has been identified. Patients are generally young,<sup>8,10</sup> but that is characteristic of appendicitis. Signs and symptoms are likely less striking than those in cases of the usual fulminant appendicitis. There is a low incidence of perforation among reported cases.<sup>8-10</sup>

It has been suggested that only the first episode may manifest itself as "classical appendicitis."<sup>8</sup> Analysis of my cases suggested the opposite. Except for the patient undergoing elective exploration (case 3), only the last episode of abdominal pain was typical for appendicitis. The others had courses that seemed to refute the diagnosis, i.e., mild leukocytosis or fever, imprecise pain localization, or absence of anorexia. The most dissuading feature was quick resolution, usually over 12 to 15 hours, instead of progression of pain. Clinical evolution was subtle,

making diagnosis difficult and thereby allowing resolution and recurrence.

There is inconsistent correlation of microscopic findings with the history in patients who might have had recurrent appendicitis. Two of these reported cases (2 and 3) had definite changes indicating past inflammation. Generally accepted criteria for the diagnosis are fibrosis and the presence of a chronic inflammatory infiltrate, i.e., microscopic evidence of healed acute appendicitis.<sup>7,8,12</sup> The role of mucocele in causing recurrent appendicitis has been documented.<sup>13</sup>

Clearly, all episodes of previous abdominal pain in patients with appendicitis cannot be attributed to that diagnosis. There are, though, enough instances in which careful history review reveals the final clinical manifestation to be the same as those suffered in the past. Correlation of many such histories with microscopic changes of past inflammation leaves no doubt that recurrent appendicitis is a true phenomenon. Between 10% and 20% of patients with appendicitis have a history of previous such illness.<sup>1,8,10,14,15</sup>

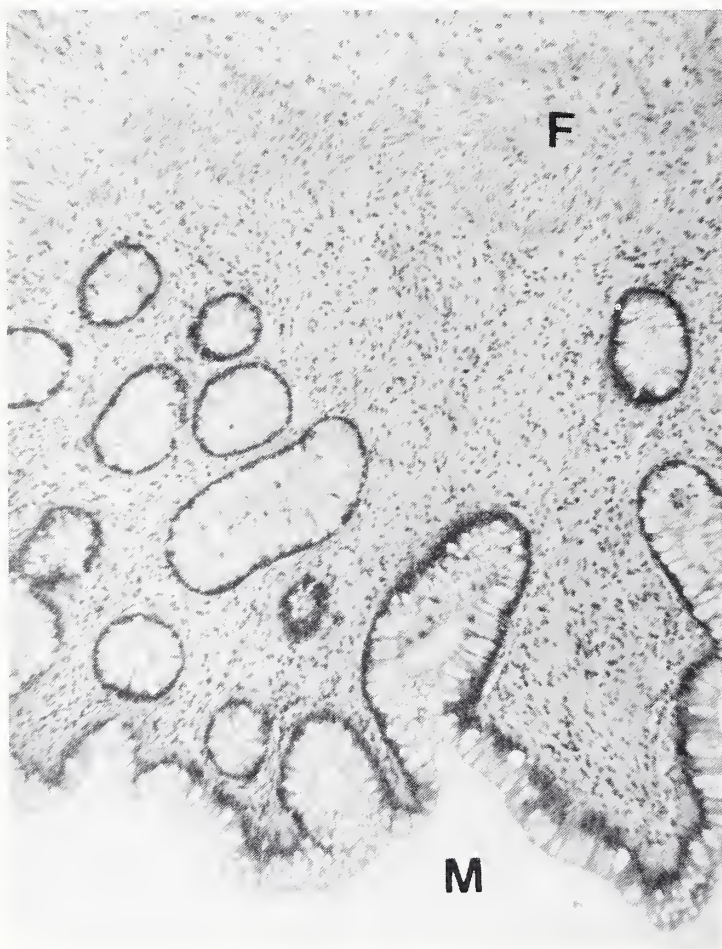
Some have cautioned that the diagnosis of appendicitis not be rejected because of a history of similar abdominal pain, and that each case should be evaluated *de novo*.<sup>10,16</sup> I conclude from personal and reported experience that an even more aggressive therapeutic approach be taken. If history is suggestive of previous appendicitis and the diagnosis is being considered, one should perhaps recommend even more prompt appendectomy; such a patient likely has recurrent appendicitis.

## Acknowledgment:

I thank Sam Dillard Jr., M.D., for his skillful analysis of microscopic sections.

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**Figure 2.** Photomicrograph of appendiceal lumen and wall, showing mucocele (M), chronic inflammation, and submucosal fibrosis (F) (hematoxylin-eosin,  $\times 100$ ).



# An Unusual Cause of Intestinal Obstruction

LU PONCE, M.D.

## Introduction

An abdominal surgeon must be conversant with intestinal obstruction since it is the cause of approximately 20% of surgical admissions for acute abdominal conditions.<sup>1</sup> Adhesions are now the most frequent cause of obstruction; in a recently reported series, neoplasm has taken the second place and hernia third.

## Case Report

An 81-year-old woman was admitted to the hospital after a fainting spell at her home. Her daughter reported that she had been having coffee-ground vomitus and black, tarry stool for five days. Upon arrival she was afebrile, and had a pulse of 100/min, blood pressure 90/60 mm Hg, tachypnea, and slight confusion. Heart and lungs appeared within normal limits. Abdominal examination showed a fine, well-healed midline hysterectomy scar extending from the umbilicus to the pubic crest. Her hemoglobin was 7.3 gm/dl, and WBC count 15,000/cu mm, with 74% segmented neutrophils, 3% band forms, 20% lymphocytes, and 3% monocytes. Upper GI endoscopy revealed a large duodenal ulcer, for which she was treated conservatively with ice saline gastric lavage IV fluids and transfusion with 2 units of blood. The nasogastric (NG) tube was removed 48 hours later, and she was discharged on the sixth day with prescriptions for ranitidine (Zantac) and sucralfate (Carafate) in addition to all her other medications.

Two weeks later, she was seen at the emergency room with epigastric pain and vomiting for three days. Her initial examination showed mild epigastric tenderness, no palpable masses or organs, and normal bowel sounds. IV fluids were started, and after 24 hours she was given clear liquids, which led to prompt return of her epigastric pain and vomiting. A barium swallow on the third day showed a partial obstruction at the pylorus (Fig. 1). An NG tube was placed and IV fluids were continued for three more days, after which she was given liquids; she was discharged the following day tolerating a soft bland diet.

Six days later she was again admitted with abdominal pain and projectile vomiting, for which she was again given IV fluids. When there was no improvement the following day, flat plate and upright x-rays of the abdomen were taken (Fig. 2), which showed classic signs of intestinal obstruction. Laparotomy on the third hospital day disclosed loops of markedly dilated small intestine due to complete obstruction at about the junction of the jejunum and ileum by a large gallstone. The obstruction was relieved on removal of the

stone. Examination of the pyloric area revealed a dense inflammatory mass involving the gallbladder and the first portion of the duodenum, probably accounting for the pyloric obstruction. Dissection revealed a cholecystoduodenal fistula and a gallbladder still full of stones. After cholecystectomy, the fistula was closed and buttressed with an omental flap. The postoperative course was uneventful, and eight months later the patient is continuing to do well, with no abdominal or digestive symptoms.

## Discussion

It is interesting to speculate that all three hospitalizations resulting from GI problems were caused by the gallstones. The first episode was due to the gallstone eroding through the gallbladder and duodenal wall, resulting in hemorrhage. The second



Figure 1. Obstruction at pylorus three hours after barium swallow.

Reprint requests to P.O. Box 220, Portland, TN 37148 (Dr. Ponce).



episode occurred when the stone was at the pylorus, resulting in its partial obstruction. The third episode occurred when the stone became lodged between the jejunum and ileum, resulting in complete small bowel obstruction.

Two cases of gastric outlet syndrome caused by gallstone (Bouveret's syndrome) have been reported in recent years. One was by Ah-Chong and Leong from the Derbyshire Royal Infirmary<sup>2</sup> and another was by Holl et al from the University of Munich.<sup>3</sup>

Gallstones cause 1% to 2% of mechanical obstruction of the small intestine, and have been associated with a mortality rate as high as 20%; more recently the mortality rate has been reported at 10% or less. Biliary-enteric fistulas usually developed between the gallbladder and duodenum, and the majority of intestinal obstruction by gallstone occurs in women, usually older women, the average age being about 64. It is very unusual in women under age 50. Associated diseases are cardiovascular disease and diabetes, occurring in 58% and 50% respectively.<sup>4</sup> The stone passes through the gallbladder wall to the lumen of the duodenum resulting in a cholecystoduodenal fistula. The terminal ileum is the most common site of obstruction since it is the narrowest segment of the small intestine. When the stone completely blocks the lumen the physiologic effects are usually severe, with large loss of fluid resulting in marked hypokalemia, hyponatremia, and hypochloremia. The usual preoperative diagnosis clinically is small intestinal obstruction of unknown etiology. There is a history of gallstones in 50% to 75% of patients. Symptoms of acute cholecystitis may precede the intestinal obstruction.

There is still a debate as to the appropriate type of surgical treatment for obstruction due to gallstone. Some believe that the surgical procedure should be enterolithotomy without cholecystectomy to relieve the obstruction, and interruption of the fistula.<sup>5</sup> On the other hand, Clavien et al<sup>6</sup> contend that in many cases a one-stage procedure consisting of the removal of the impacted stone, fistula repair, and cholecystectomy should be the procedure of choice. They report that the majority of those who were treated only by enterolithotomy developed biliary symptoms and complications. They conclude from their series that a one-stage procedure, when feasible, is a valid option and may be the procedure of choice.

In our case there seemed to be no choice but to dissect and explore the pyloric area because of the gastric outlet obstruction and the inflammatory mass.



Figure 2. Dilated loops of small intestine.

When the large cholecystoduodenal fistula was entered during the dissection, there was an open gallbladder and an open duodenum and the only logical treatment was to complete the removal of the gallbladder and close the duodenal opening. The postoperative course was uneventful and six months later the patient continues to do well without any abdominal or digestive symptoms. Perhaps the answer to the question of one-stage or two-stage surgery is to individualize the procedure. In our patient it would seem that a one-step procedure was indeed the appropriate choice. On the other hand, in a very poor-risk patient with no sign of obstruction at the pylorus, enterolithotomy alone should probably be done.

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## Disseminated Histoplasmosis and AIDS

### Case Report

A 36-year-old man, a teacher in Atlanta, was admitted to Vanderbilt University Hospital with lethargy, anorexia, and chills. He had been well until one month earlier, when he became acutely depressed and anxious after he failed to win a "Teacher of the Year" award for which he had been nominated. He took a leave of absence from his job, and saw a psychiatrist who prescribed alprazolam and, later, buspirone. Several days before admission, he moved to Nashville to live with his sister. Over the next several days he developed nausea and vomiting, for which a physician prescribed ranitidine and promethazine. He became progressively more lethargic. He lost weight and developed shaking chills, but denied night sweats, cough, sore throat, shortness of breath, chest pain, abdominal pain, or dysuria. He also denied any previous illness. He did not drink or smoke, and denied intravenous drug use, homosexual behavior, or sexual promiscuity. In addition to alprazolam, buspirone, ranitidine, and promethazine, the patient had taken naproxen and an over-the-counter salicylate preparation.

On physical examination, the patient appeared gaunt. His temperature was 103.7°F, blood pressure 110/70 mm Hg, and pulse 110/min in the supine position; his blood pressure declined to 90/60 mm Hg and pulse increased to 130/min when he stood. Respiratory rate was 20/min. There were petechiae on the soft palate, and there was a firm but mobile 1-cm posterior cervical lymph node. The lungs were clear. A grade 1/6 early systolic murmur was heard at the left lower sternal border. Examination of the abdomen revealed hepatomegaly but no splenomegaly. His attention span was shortened, and there was asterixis, but the neurologic examination was otherwise normal.

Laboratory examination revealed a sodium level of 129 mEq/L, potassium 5.9 mEq/L, chloride 94 mEq/L, bicarbonate 12 mEq/L, BUN 189 mg/dl, and creatinine 10.6 mg/dl. Arterial blood gas analysis on blood drawn while the patient breathed room air revealed a pH of 7.37,  $P_{CO_2}$  26 mm Hg, and  $P_{O_2}$  90 mm Hg. The WBC count was 12,600/cu mm with 90% polymorphonuclear leukocytes, 4% lymphocytes, and 1% monocytes. The hematocrit was 38% and platelet count 7,000 to 8,000/cu mm. The prothrombin time was 13 seconds and partial thromboplastin time 30 seconds. The serum calcium was 7.7 mg/dl (normal 8.5 to 10.5). The AST was 187 IU/L (normal 4 to 40), ALT 87 IU/L (normal 4 to 40), LDH 3,264 IU/L (normal 125 to 250), alkaline phosphatase 159 IU/L (normal 40 to 110), amylase 313 IU/L (normal 25 to 115), and bilirubin 1.5 mg/dl (normal 0.2 to 1.2). Radiograph of the chest revealed old, healed granulomatous disease.

A diagnosis of thrombotic thrombocytopenic purpura was initially considered in this patient with fever, anemia, thrombocytopenia, mental status changes, and renal failure, but examination of the peripheral smear on the night of admission revealed no schistocytes; moreover, the reticulocyte count returned 0.1%. The patient was initially treated with IV cefotaxime, but blood and urine cultures were negative. The diagnosis of an infiltrative process involving the bone marrow,

liver, and perhaps adrenal glands was considered, and biopsy of the bone marrow, performed on the second hospital day, revealed numerous yeast forms consistent with histoplasmosis. There were increased megakaryocytes. Culture of the bone marrow subsequently grew *Histoplasma capsulatum*. The patient tested positive for antibody to human immunodeficiency virus (HIV) by both the ELISA and Western blot methods. The absolute CD4 count was 50. A serum cortisol level was elevated at 33 µg/dl. The patient was treated with a total of 221 mg of amphotericin B, and then oral itraconazole. He was treated with oral prednisone for presumed idiopathic thrombocytopenic purpura, and was twice treated with hemodialysis. His serum creatinine subsequently declined to 1.9 mg/dl, prior to discharge. The etiology of the acute renal failure was believed to include prerenal azotemia, nonsteroidal anti-inflammatory agents, and possibly his disseminated histoplasmosis. The liver tests had also become normal prior to discharge.

The patient was discharged to home on oral itraconazole and prednisone.

### Discussion

In 1985, the Centers for Disease Control expanded their case definition of the acquired immunodeficiency syndrome (AIDS) to include patients with disseminated histoplasmosis who test positive for antibody to the HIV. The incidence of disseminated histoplasmosis among AIDS patients who live in areas where *H. capsulatum* is endemic has been reported to be 5% to 26.7%.<sup>1,2</sup> This compares with an incidence of 0.5% among AIDS patients who live in nonendemic areas.<sup>3</sup>

In approximately 40% of patients with AIDS and disseminated histoplasmosis, the histoplasmosis was the first manifestation of immunodeficiency. Concurrent opportunistic infections with *Pneumocystis carinii*, *Mycobacterium avium-intracellulare*, *Candida*, *Cryptococcus*, *Cryptosporidium*, and cytomegalovirus are common.<sup>1,2</sup>

Fever and weight loss are the two most common presenting systems. Hepatomegaly, splenomegaly, or lymphadenopathy occur in approximately one-third of patients. Thrombocytopenia, anemia, or a decreased leukocyte count also occur in 33% of patients. The incidence of respiratory symptoms (cough and dyspnea) ranges from 15.7% to 52.8%. A syndrome resembling septicemia has been reported to occur in approximately 10% of patients with AIDS and disseminated histoplasmosis.<sup>1,2</sup>

Radiograph of the chest demonstrates diffuse interstitial or reticulonodular infiltration in about 45% of patients<sup>1,2</sup>; mediastinal lymphadenopathy occurs in only 2.8% to 4.5%.<sup>1</sup> Nodular calcification either in the lung, as seen in this patient, or of mediastinal lymph nodes, occurs in only 2% to 3% of patients.<sup>1</sup> As many as 50% of patients have normal radiographs of the chest.<sup>1,2</sup>

Presented by Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.



Diagnosis of disseminated histoplasmosis is made by both biopsy and culture. Bone marrow biopsy and cultures are positive in 70% to 90% of patients, and blood cultures are positive in 30% to 90%, depending on the culture method used. *H. capsulatum* may also be cultured from respiratory specimens, lymph nodes, urine, CSF or brain, skin, and liver.<sup>1,2</sup> *H. capsulatum* polysaccharide antigen (HPA) may be detected in blood, urine, or CSF in 97.3% of cases.<sup>1,3</sup> HPA levels decline following therapy and increase during relapses.<sup>1,3,4</sup>

Fifty percent to 80% of AIDS patients with disseminated histoplasmosis respond to treatment with amphotericin B. As many as 80% of these patients, in turn, relapse.<sup>1,2,5</sup> Maintenance therapy with ketoconazole or biweekly amphotericin B has cut the relapse rate to 50% and 20%, respectively.<sup>1,6</sup> Early data suggest that

the triazoles fluconazole and itraconazole are at least as effective for maintenance therapy as biweekly amphotericin.<sup>1,3,4</sup>

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## Abdominal Pain in a Kuwaiti Woman

### Case Report

A 21-year-old woman was admitted to Vanderbilt University Hospital complaining of abdominal pain and distension. The patient was a native of Kuwait who had come to the United States two years earlier while her husband was attending school. Nine months before admission, she delivered a full-term infant without complication. Three months before admission, she accompanied her family on a short trip back to Kuwait and Egypt.

The patient was well until four weeks before admission, when she noted lower abdominal pain and slight abdominal distension. She visited a local clinic and was treated for a possible urinary tract infection. During the next month, she noted a nonproductive cough and 20-lb weight loss. Nine days before admission, she went to another hospital with continued dull, nonradiating abdominal pain accompanied by increased abdominal distension, for which Mylicon tablets were prescribed. Four days before admission, she returned to a clinic with continued abdominal pain, night sweats, and a temperature of 102°F. She was referred to a gynecologist but no appointment was available.

Shortly before admission, the patient developed postprandial nausea, vomiting, and diarrhea. Because of persistent pain and increasing distension, she came to the Vanderbilt emergency room. She denied irregular vaginal bleeding or discharge.

On physical examination, the patient appeared thin but in no acute distress. Her temperature was 98.3°F, pulse 102/min, and respiratory rate 20/min. Her blood pressure was 103/68 mm Hg without orthostatic change. There was no rash, petechiae, or jaundice, and the lungs were clear. Abdominal examination revealed marked distension, high-pitched bowel sounds, tympany, ascites, and diffuse tenderness with voluntary guarding in the right lower quadrant. Pelvic examination was normal. The stool was negative for blood.

Laboratory studies showed a hematocrit of 39%, and a WBC count of 6,200/cu mm, with 74% neutrophils, 13% lymphocytes, 8% monocytes, 2% eosinophils, and 3% atypical lymphocytes. The total bilirubin was 9.6 mg/dl, amylase 33 IU/L, SGOT 35 IU/L, alkaline phosphatase 95 IU/L, and albumin 1.8 mg/dl. Urinary pregnancy test was negative. Supine and upright films of the abdomen disclosed multiple distended loops of small bowel, with corresponding air-fluid levels and ascites. Radiograph of the chest was normal.

Laparoscopic evaluation to rule out obstruction with strangulation revealed diffuse inflammation, and tubercles studding the patient's peritoneum. Two biopsies of the peritoneum revealed caseating granulomas with acid-fast bacilli. Liver biopsy revealed mild periportal steatosis. There was no evidence of malignancy.

The patient's initial postoperative course was complicated by morning temperatures to 102°F. Blood and urine cultures were negative. She was initially treated with IM isoniazid and IV rifampin, and was given total parenteral nutrition via a central venous catheter. Over the next several days she was permitted to eat and her antituberculous regimen was changed to oral isoniazid, rifampin, ethambutol, and pyridoxine. She was discharged on the 11th postoperative day; her husband and child were to be evaluated by local physicians.

### Discussion

Tuberculous peritonitis is an important cause of ascites in developing countries, where tuberculosis is endemic. The incidence of tuberculous peritonitis ranges from 0.1% to 0.7% among patients with tuberculosis.<sup>1</sup> In the United States, tuberculous peritonitis occurs primarily among immigrants and travelers, the indigent, and patients with underlying illnesses such as cirrhosis, renal failure, congestive heart failure, and silicosis.

Tuberculous peritonitis may result from hematogenous spread from a primary pulmonary focus,

(Continued on page 114)

Presented by Jo-Anne van Burik, M.D., medical resident, Kathleen M. Neuzil, M.D., fellow in infectious diseases, and Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.



## Axillary Artery Injuries

JOHN N. MEADORS, M.D.; MITCHELL H. GOLDMAN, M.D.; and KIMBALL I. MAULL, M.D.

### Introduction

Injuries to the axillary artery in the civilian population occur by both blunt and penetrating mechanisms. The diagnosis is often evident in penetrating injury, obviating the need for arteriography. Diagnosis and surgical planning in blunt injury are facilitated by roentgenograms and arteriography. Surgical repair should be undertaken expeditiously for either as soon as the patient presents with diminished upper extremity pulses and neuromuscular compromise.

### Case Report

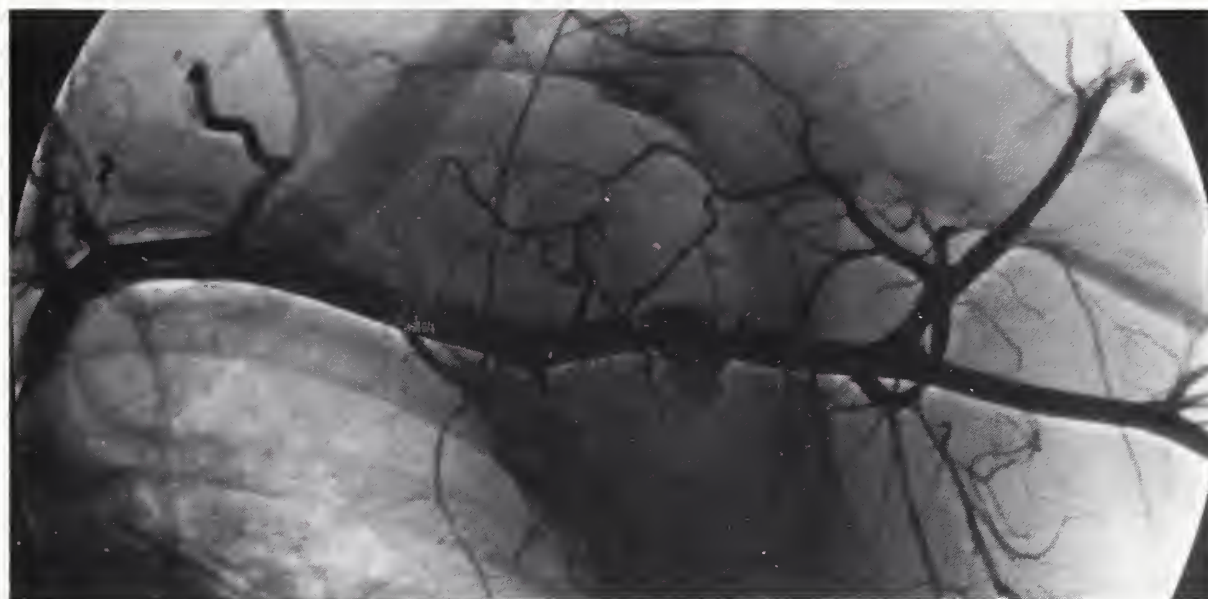
A 21-year-old white man sustained a self-inflicted gunshot wound to the left upper thorax from a .308 caliber handgun. The entrance wound was located 5 cm below the junction of the middle and lateral thirds of the clavicle, and the exit wound just below the tip of the scapula. The patient was taken to a regional hospital via surface ambulance, where a chest tube was placed in the left pleural space; it was complicated by neither air leak nor drainage. The patient was subsequently transferred to the University of Tennessee Medical Center at Knoxville via air ambulance. Upon arrival, the patient had a warm but pulseless left upper extremity, with a hematoma below the left clavicle. The patient's grip and forearm flexor function were decreased in comparison to that of the right

upper extremity. An arteriogram confirmed an injury to the axillary artery (Fig. 1). In the operating room, after obtaining proximal and distal control, the artery was debrided and repaired using a saphenous vein interposition graft and running polypropylene sutures. The patient had an uncomplicated postoperative course, including aggressive inpatient physical therapy, but he never recovered any neurologic function.

### Discussion

The axillary artery is a continuation of the subclavian artery, starting at the lateral border of the first rib and ending at the inferior border of the teres major muscle, where it continues distally as the brachial artery. The artery is divided into three parts by its relation to the pectoralis minor muscle: proximal, beneath, and distal. The first part has one branch, the superior thoracic artery. Part two has two branches, the thoracoacromial and the lateral thoracic arteries. The third part has three branches, the subscapular, and the anterior and posterior circumflex humoral arteries. The axillary vein usually coexists in the single sheath covering the axillary artery when the arm is abducted. This intimate relationship contributes to the common occurrence of arteriovenous fistula following penetrating injuries. Proximally, the brachial plexus lies lateral to the artery, and distally, the three cords of the plexus virtually surround the second and third parts of the artery. The

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**Figure 1.** Digital angiography demonstrating "pseudoaneurysm" created by a completely transected axillary artery.

close proximity of these structures explains the high incidence of concomitant nerve injuries in axillary artery trauma.<sup>1</sup>

Trauma to the upper chest and proximal upper extremity required a diligent search for injury to the axillary artery. With penetrating trauma resulting in a pulseless upper extremity and an expanding hematoma, the diagnosis is obvious. When physical findings are "soft," or in the case of blunt trauma, the injury may not be easily discerned, arteriography is warranted. Whereas penetrating trauma in proximity to a major limb artery without obvious physical signs may, in some instances, be observed, penetrating wounds to the thoracic outlet should be examined angiographically. Aggressive arteriography may lower the rate of missed significant arterial injury in this population.<sup>2</sup>

Adequate surgical exposure is essential, because a large hematoma in the axilla distorts and conceals vital structures. A curved incision over the cephalic vein in the delto-pectoral groove is ideal. If necessary the tendon of the pectoralis major muscle is transected.<sup>1</sup> The Sauerbruch or trap door incision is usually advised only for injuries of the proximal subclavian artery.<sup>3</sup> Direct anastomosis or vein graft represent the mainstays of surgical therapy. In their experience with 21 patients using polytetrafluoroethylene (PTFE) grafts to repair injured axillary arteries, Feliciano and Mattox<sup>4</sup> reported no infections or early occlusions and only one late

asymptomatic occlusion. PTFE would appear to be a safe alternative when vein is unavailable. Ligation of the axillary artery is not recommended; DeBakey and Simeone<sup>5</sup> reported gangrene following ligation in 43% of 74 axillary arterial injuries in World War II. Although the collateral circulation of the axillary artery is extensive, several of its branches may concomitantly be damaged, compromising circulation to the upper extremity following ligation.

## Conclusion

Optimal outcome from axillary artery injuries requires prompt diagnosis and repair. If physical examination is equivocal, arteriography should be utilized aggressively. Arterial repair, either directly or with interposition graft, provides excellent long-term results. Ligation is to be avoided. Associated neurologic damage represents the most serious long-term sequela of axillary artery injury.

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## Vanderbilt Morning Report . . .

(Continued from page 112)

or from reactivation of a latent tuberculous focus in the peritoneum.<sup>2,3</sup>

Patients with tuberculous peritonitis are usually in their third or fourth decade.<sup>2-5</sup> Women predominate over men in most series. The mean duration of symptoms at the time of presentation ranges from two to four months. Abdominal pain and swelling, weight loss, anorexia, night sweats, and lethargy are the most common presenting complaints. Though fever may be documented in 80% to 90% of the patients, it may be mild. Ascites, abdominal mass, and lymphadenopathy are the most common physical findings.

Findings on routine laboratory examination are not specific for tuberculous peritonitis.<sup>2-5</sup> Anemia is common. The peripheral white count may be normal or elevated. The ascitic fluid is exudative with a lymphocyte predominance; ascitic adenosine deaminase may be elevated and may be used to distinguish tuberculous peritonitis from other causes of ascites.<sup>6</sup> Radiograph of the chest reveals pleuropulmonary disease in 40% to 70% of patients.<sup>2-5</sup> Tuberculin skin testing using intermediate strength purified protein derivative (PPD) is negative in 40% to 80% of patients.

Approximately half of these patients will fail to react to second strength PPD.

Diagnosis is made by laparoscopy or laparotomy.<sup>2-5</sup> Percutaneous peritoneal biopsy has also been used to obtain diagnostic tissue, but has been complicated by bowel perforation. Laparotomy reveals thickening of the omentum, adhesions, and peritoneal tubercles. Diagnosis rests on the demonstration of acid-fast bacilli in caseating granulomas on microscopic examination of the peritoneal biopsy material or on culture of mycobacteria from the ascitic fluid.

Treatment with conventional antituberculous regimens effects cure in the majority of cases.<sup>2-5</sup>

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## Patient Relations Guidelines: Taking the Bite Out of the Bill

ROBERT BOWERS, M.D., *Chairman*  
TMA Communications and Public Service Committee

For some patients, the most painful part of a visit to the doctor's office is paying the bill. There are several things you can do to make the billing process easier and less traumatic.

Following are billing tips that may already be part of your billing routine, or they may be new ideas. They were gathered through informal focus groups and research with physician offices and were used with our Community Awareness, Resource, and Education (CARE) program.

- Let your patients know your payment policy in advance. When your patients call for an appointment, before they ever come to your office, tell them when and how they'll be expected to pay. If you only accept cash, they'll need to know ahead of time, especially if you want full payment at the time of the visit. And if you can, give them an estimate of how much the visit will cost. They'll appreciate the time to prepare financially.

- If your policy changes, let your patients know immediately. Send them notices and display the new policy in the check-in area as well as in the area of payment.

- Be flexible when possible. This is perhaps the most important thing you can do for your patients at billing time. When possible, be willing to hold post-dated checks for a week or so, accept monthly payments, or bill the laboratory work separately. Unexpected medical costs can have a serious effect on the finances of some of your patients and can be averted with some sympathetic cooperation from you.

- Send a letter of thanks with the first bill. If you send any forms or bills after the first visit, include a hand-signed letter from the physician, expressing appreciation for their visit. This will be especially easy if you attach a piece of notepaper to their files and write a sentence or two while you have the file in hand. Then the job is taken care of.

- Display signs that show accepted payment methods. Do you take credit cards? Checks? Cash only? Place a sign at the payment area for your patients' con-

venience and understanding. And put it in your practice's communications to patients.

- Handle billing discussions in private. Some patients may get embarrassed if they have to discuss payment within the hearing of other staff members or patients. Set aside a special visually separate area for private discussions, whether it's a room with a door or an isolated corner of the office. This is also a good place to go over long-term treatment billing, such as for obstetrical care.

- Encourage patients to ask questions about their bills. When your patients receive their bills, give them time to look at them and ask if they have any questions.

If you or members of your office staff have additional suggestions about making billing easier and more comfortable for patients, please share them with us. The Tennessee Medical Association is here to serve you, and, in turn, help you establish more effective relationships with your employees and patients.

### MOVING? Send Us Your Address

Please notify us six weeks in advance.

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Send to: TMA, PO Box 120909, Nashville, TN 37212-0909

## The Ambulance Data System

JOSEPH B. PHILLIPS and JAMES BLAINE HILL

In January 1990, the Tennessee Department of Health's Division of Emergency Medical Services implemented the EMS "Clinical Encounter Management System," a management control system to monitor the activities of emergency medical technicians (EMTs) and paramedics during prehospital clinical encounters. The history and development of this system was described in detail by Paul S. Auerbach, M.D., former EMS Division medical director (Paramedic and emergency medical technician clinical encounter management system for Tennessee. *J Tenn Med Assoc* 83:63-70, 1990).

Prior to this system's implementation, no management control system existed to monitor and regulate prehospital health care delivery to the public and to ensure that patient care standards were met. The new system provides a means of collecting patient care information and the capability to analyze the data and distribute them in a form useful to ambulance services, the EMS Division, and others.

The data will be used for several purposes, such as state-level quality assurance, feedback for state mandated training and in-service training, and research on care given to children, neonates, and cardiac patients, among others. Using the data in this way should improve prehospital patient care by insuring that standards of care are met and that the standards themselves can be changed as indicated by the scientific process.

The system utilizes an EMS encounter or "run report" form (Fig. 1) upon which data are entered by EMS personnel for each ambulance transport in the state. Copies of the form are provided for the receiving hospital and the ambulance service. The primary copy of the form is sent to the state EMS office, where it is processed through an optical mark reader. The accumulated data are stored on a microcomputer hard disk. Each annual database will be uploaded to a mainframe computer.

Alternatively, ambulance services can upload these data electronically by microcomputer diskette. This requires the service of software that contains translation

codes necessary for compatibility with the EMS Division's database. Several ambulance services have chosen to provide ambulance run data in this manner, and other services are considering uploading their data electronically.

The system software, titled "EMSCAN" by its developer, EMS Data Systems, Inc., provides for the output of seven standardized reports to each ambulance service. The reports that will be generated by the system are:

- Unit Utilization—defines the deployment of each ambulance, and includes response time and number of calls by time, day, and week.

- Incident location/type—identifies both incident type and location frequency.

- Trauma—contains three elements: an injury type and site matrix, revised trauma score frequency and percentage, and Glasgow coma scale frequency and percentage.

- Medical—contains subsections for medical emergency frequency and percentage, total medical calls per ambulance, and EKG frequency and percentage.

- Treatment—contains subsections for both basic life support and advanced life support treatment, medication administration by frequency and percentage, and IV solution rate frequency and percentage.

- Admission—delineates receiving, originating, and consulting hospitals by name, plus frequency and percentage.

- EMT Treatment—lists treatment and medications administered by individual EMTs and paramedics.

The EMSCAN software also has the capability of producing cross variate analyses of any elements in the database. Therefore, a large number of special reports can be easily produced. For example, the medical director of an ambulance service can examine the performance of individual paramedics based on individual patient diagnosis as to treatment provided, or study the performance of the service as a whole by examining the same types of variables.

The reports can be provided either in the form of hard copy printouts or electronically by microcomputer diskette. Those services possessing PC compatible microcomputers will be provided EMSCAN report generating software followed by periodic diskette back-

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From the Division of Emergency Medical Services, Tennessee Department of Health, Nashville. Mr. Phillips is the Division's director and Mr. Hill is the Division's quality assurance director.



up of their data. Electronic data transfer is the preferred means of exporting data to all users.

This database will be an important tool to assist in the state level management of the EMS system and the clinical management of ambulance services. It provides information crucial to rational evaluation and decision making, information that has heretofore been

unavailable.

The database can serve health researchers and planners in many ways. It has the potential for improving understanding about the function of important elements of our health care delivery system and for helping develop and evaluate injury and illness prevention programs.

FIGURE 1

STATE OF TENNESSEE EMS ENCOUNTER FORM

© 1989, 1990 EMS DATA SYSTEMS

UNIT PERMIT #	CNTY	DATE	YR	CALL RCVD	DISPATCH	DEPART	ARRIVE LOC	DEPART LOC	ARRIVE DEST	DEPART DEST	IN SERVICE
0 0 0 0 0 0	0 0	J an J ul	0 0 91	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
1 1 1 1 1 1	1 1	F eb A ug	1 1 92	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1
2 2 2 2 2 2	2 2	M ar S ep	2 2 93	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2
3 3 3 3 3 3	3 3	A pr O ct	3 3 94	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3
4 4 4 4 4 4	4 4	M ay N ov	4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4
5 5 5 5 5 5	5 5	J un D ec	5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5
6 6 6 6 6 6	6 6		6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6
7 7 7 7 7 7	7 7		7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7
8 8 8 8 8 8	8 8		8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8
9 9 9 9 9 9	9 9		9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9

PUBLIC SAFETY ASSIST		INCIDENT LOCATION		TYPE OF CALL			
Fire	P 5 A	Patient Residence	Farm	ATV	Assault	Illness	Admission Transfer
Police	P 5 A	Dther Residence	Restaurant/Bar	Motor Vehicle	Burn	Behavioral	Discharge Transfer
1st Responder	P 5 A	Highway (55mph)	Hospital	Motorcycle	Fall	Choking	Outpatient Transfer
Rescue	P 5 A	Street	Clinic/Dr.'s Office	Recreation Vehicle	Fire	Maternity/Childbirth	Evacuation
Bystander	P 5 A	Industrial	Convalescent Facility	Pedestrian	Gunshot	Seizure	Other
(Pnor, Simultaneous, After)		Recreation Area	Other	Other Trauma	Stabbing	Unc / Man Down	Round Trip Transfer

AGE	INJURY SITE/TYPE	MECHANISM	PATIENT PROTECTION	ILLNESS/EMERGENCY	VITAL SIGNS	CPR	
0 0	Abrasion	Extraction > 20	L apbelt H elmet	Abdominal Pain	GI Problems	None Obtainable	Pulse Restor'd?
1 1	Amputation	Flail Chest	S oulder S af St	Airway Obst	Infectious Ois	None Taken	Y N
2 2	Burn	Fall > 20 ft	L ap/Shldr U nknown	Allergic React	Db/Gyn		Arrest to CPR
3 3	Contuse	High Spd MVA	A irbag N ot avbl	Behavior Emerg	Poison/OO		< 4
4 4	Fx/Disloc	Loss of Consc		Cardiac Arrest	Resp. Distress		4-B
5 5	Lacerate	MVA w/Death	D rive O ther	Cardiac Prblms	Seizure		> 15
6 6	Pain	MV Ejection	F ront U nknown	Chest Pain	Sexual Assault		Arrest to Defib
7 7	Penetrate	Vehicle Intrus	R ear	Childbirth	Smoke Inhal		< 4
8 8	Other			COPO	Sting/Bite		4-B
9 9				Dead on Arrival	Stroke		> 15
0 0				Diabetes	Syncope		
1 1				Drowning	Unconscious		
2 2				Environmental	Other		
3 3				Was Incident Work-Related?			
4 4				Yes No U nknown			
5 5							
6 6							
7 7							
8 8							
9 9							

BLS TREATMENT		ALS TREATMENT		MEDICATIONS		EKG		HOSPITAL	
Assess/Vitals	AT 2 3 Oth	Performed By:	Attempts	AT 2 3 Atropine	AT 2 3 Lidocaine	I Nml Sinus	T	ORIGIN	ORIG
Airway	AT 2 3 Oth	AT 2 3 Peripheral IV	R U	AT 2 3 Benadryl	AT 2 3 Metoprolol	I Asystole	T	H N OTH	H N OTH
EOA	AT 2 3 Oth	AT 2 3 Blood Draw	R U	AT 2 3 Bretylium	AT 2 3 Morphine	I Atrial Fib	T		
Oxygen	AT 2 3 Oth	AT 2 3 Cardioversion	R U	AT 2 3 Ocedron	AT 2 3 Narcan	I Atrial Flutter	T	0 0 0 0	0 0 0 0
PTL	AT 2 3 Oth	AT 2 3 Defibrillation	R U	AT 2 3 Dext. 50%	AT 2 3 Nitrous Oxide	I EMD	T	1 1 1 1	1 1 1 1
Auto Defib	AT 2 3 Oth	AT 2 3 Endo Intubate	R U	AT 2 3 Oiazepam	AT 2 3 NTG Sublingual	I Heart Block	T	2 2 2 2	2 2 2 2
CPR	AT 2 3 Oth	AT 2 3 Needle Thorac	R U	AT 2 3 Epi(1.000)	AT 2 3 Procainamide	I PVC's	T	3 3 3 3	3 3 3 3
Bleed Control	AT 2 3 Oth	AT 2 3 Pacing	R U	AT 2 3 Epi(10.000)	AT 2 3 Sodium Bicarb	I Sinus Brady	T	4 4 4 4	4 4 4 4
Crisis Interv	AT 2 3 Oth	AT 2 3 Rhythm Interp	R U	AT 2 3 Furosemide	AT 2 3 Thiamine	I Sin. Tach.	T	5 5 5 5	5 5 5 5
Extraction	AT 2 3 Oth			AT 2 3 Isuprel	AT 2 3 Verapamil	I SV Tach.	T	6 6 6 6	6 6 6 6
MAST	AT 2 3 Oth	Protocol	Stand. Verbal			I Vent Tach.	T	7 7 7 7	7 7 7 7
OB Delivery	AT 2 3 Oth					I Vent Fib.	T	8 8 8 8	8 8 8 8
Spine Immob.	AT 2 3 Oth	Good	UHF Cellular	IV O5W NS RL Other		I Other	T	9 9 9 9	9 9 9 9
Splint Ext.	AT 2 3 Oth	Poor	VHF	TKO Wide Bolus Dther					
Ventilation	AT 2 3 Oth	None	Telephone						

TRANSPORT		HOSPITAL CHOSEN		SPEC. CD.		TTL MILE		ATTENDING TECH (1)		DRIVER (2)		TECHNICIAN (3)	
Ambulance	Pt. Choice	Police		0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
Helicopter	Closest	Consult		1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	
POV	Protocol	Physician Order		2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2	
None (T.O.S.)	Reroute	Physician on Scene		3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	
No Treat				4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4	
Refused				5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5	
Cancelled				6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6	
False Call				7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7	
Standby				8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8	
				9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9	

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# Early Clues—Missed?

J. KELLEY AVERY, M.D.

### Case Report

This 39-year-old mother of two, who had a past history of URIs, sinusitis, and otitis media on many occasions, was seen by her primary care physician about three weeks before this Sunday visit to the emergency room with fever and vomiting, and was found to have bilateral otitis media. She was given amoxicillin 500 mg four times a day. Today she came to the ER in a nearby large city after having developed severe retro-orbital pain associated with nausea and vomiting. She reported that she was no better after the three days of amoxicillin.

The ER workup revealed a temperature of 101.6°F. The chest was reported as "clear." Laboratory tests revealed a WBC count of 6,100/cu mm with 86% segmented neutrophils, 6% band forms, and platelets at 61,000/cu mm. The "on call" internist was called, who gave her Demerol for pain, 1,000 ml, D5RL IV, and Phenergan suppositories for nausea. "Follow-up in my office in three days. Check the platelets at that time." The impression recorded by the ER physician was dehydration, upper respiratory syndrome, and thrombocytopenia.

The patient returned to the ER three days later, about four hours before the appointment that she had been given with the attending internist, again complaining of persistent nausea and vomiting. The retro-orbital headache had persisted and now she complained of bilateral earaches; her temperature was 101.8°F, and again she was dehydrated. She was sent to the internist's office after this visit to the ER, where her past history was reviewed. On her first ER visit no antibiotics were given; on that occasion she was admitted to the hospital. The chest x-ray made on her first visit to the ER was reported to be WNL, but the attending physician thought that his patient had a "post-viral pneumonia." Routine blood work was ordered in addition to cultures of sputum and blood. In the nurses' note the patient was said to have a temperature of 104°F and was quoted as saying "he said I had pneumonia." The note further records pain on deep breathing and shortness of breath.

The laboratory reported a  $PO_2$  of 68 mm Hg, with an  $O_2$  saturation of 96.2%. Now the WBC count was 13,400/cu mm again with a marked left shift with 80% segmented neutrophils and 16% band forms reported. The platelets were reported at 54,000/cu mm. Treatment with Rocephin 1 gm every 24 hours was begun. The patient continued to complain of pain in the chest on deep breathing, and shortness of breath, but the phrase, "respirations not labored" was repeatedly seen in the nurses' notes. The blood and sputum cultures were reported positive for staphylococci on the second hospital day. The chest x-ray continued to worsen, with increasing opacity in the right lung.

Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

A consulting pulmonologist reported that the chest x-ray was showing signs of necrotizing, which was consistent with staphylococcal pneumonia. Antibiotics were changed at this point, five days after admission, to nafcillin 2 gm every six hours.

The patient was repeatedly found by the physicians to be "lethargic." One of the consultants thought there were beginning signs of empyema after about a week in the hospital. Fever increased, leukocytosis was more prominent, and the right lung showed increasing opacity. With this degree of sepsis, the patient became anemic, requiring transfusions with packed RBCs.

After a week in the hospital, the patient developed diarrhea, and was investigated for pseudomembranous colitis; a sigmoidoscopic examination was negative. Increasing signs of empyema demanded a consultation with a chest surgeon. Hypoproteinemia developed and worsened, with increasing peripheral edema. A paracentesis was done on suspicion of ascites, but none was found. A thoracentesis removed about 600 cc of the purulent fluid.

Dyspnea became steadily worse, and the surgeon thought that a thoracotomy with rib resection for adequate drainage of the empyema would be necessary for the patient to improve. During the second weekend of this patient's hospitalization, all of the physicians involved in her care, which included her internist, a consulting pulmonologist, another covering pulmonologist, and the surgeon, concurred in the decision to proceed to surgery.

After the surgery the patient went from the recovery room to the ICU, intubated and on controlled respiration. There was copious drainage from the right chest. The patient was very agitated, and tried repeatedly to get to the ET tube. She was given morphine to relieve pain and control agitation. Marked tachycardia was present, with rates to 200 on the monitor. She was very restless, turning her head from side to side, and agitation was difficult to control. The  $PO_2$  was recorded at 58 mm Hg and the  $O_2$  saturation down to the low 90s. She became very acidotic, and bicarbonate was ordered by the surgeon. About 14 hours after the operation, after diuretics had been given, the surgeon ordered a chest x-ray to be done stat, and asked that the ER physician compare the two films and call him about his observations. Lanoxin was given because of the tachycardia, steroids were used in large doses, and nafcillin was resumed in the preoperative dosage of 2 gm every six hours.

There were numerous changes in ventilator settings. Diuretics were given, and more Lanoxin was given IV for persistent tachycardia. The patient continued to be extremely restless and difficult to control. Nothing seemed to work, and about 18 hours after the surgery she was found to have extubated herself. An attempt was made to oxygenate her with the AMBU and a face mask. Reintubation was accomplished by the attending physician but the #6 ET tube used would not stay in place. The code was ended about 80 minutes after it started. The autopsy revealed the expected extensive necrotiz-



ing pneumonia, with near complete consolidation of both lungs.

A lawsuit was filed charging the attending physician, the pulmonary consultant, and the surgeon with deviation from an acceptable standard of care. The attending physician and the pulmonary consultant were charged with failure to assess and evaluate the true condition of the patient in a timely manner and of not using an adequate dosage of the appropriate antibiotics. The surgeon was charged with negligent postoperative management of the patient. Experts and peers concluded after many reviews that an effective defense would not be possible, and a large settlement was made.

Loss Prevention Comments

On review, there seemed to be some clues in this case that were not considered by the attending physician and the first consultant, the pulmonologist. On initial encounter with the ER physician, the fever associated with upper respiratory complaints and the very unusual blood picture might have been considered to be a response to a severe and potentially life-threatening infection. The WBC count was only 6,100/cu mm, but the differential was very suspicious in that the segmented cells were 91% of the total, and 6% were band cells. A very suspicious finding that might further indicate suppression of the bone marrow was that the platelet count was only 61,000/cu mm, and this thrombocytopenia persisted, only to begin to improve slightly after antibiotic therapy and other supportive measures were begun. After the chest x-ray showed pneumonia, the choice of antibiotic was a cephalosporin, which is not recommended as a first-line drug for gram-positive infections, which could have been suspected in this setting. As the patient got sicker, the dose of this initial antibiotic was increased, and it was only after culture diagnosis of *Staphylococcus* sepsis and pneumonia that an antibiotic that could have been effective was given. The reviewers were puzzled as well by the fact that, in

the face of a worsening situation, a more effective antibiotic was not added to the treatment regimen. It would have also been extremely difficult to defend the lack of an infectious disease consultation at an early stage of this woman's illness.

The surgeon was probably asked for his opinion later than was ideal, but he cannot be blamed for that. Perhaps the right operation was done too late. The real fact that made this good surgeon difficult to defend was that he did not personally attend his patient during the last 18 hours of her life. He saw her about five hours after the surgery, but in the face of a progressively deteriorating clinical picture, he continued to give only one set of phone orders after another. Only after the extubation and the code was begun did he come to the hospital.

Without question, the nurses on duty during the post-operative 18 hours failed to apprise the physicians in charge of the patient's care of some critical information. Their assessment of the clinical condition was consistently misleading. While they reported the laboratory findings at appropriate times, they failed to stress the patient's severe discomfort and agitation. Had they been more clinically accurate, one could conceive that the extubation would not have occurred and that the patient just might have survived. Because of these nurses' failure to act according to acceptable nursing standards, the hospital joined in the large monetary settlement.

Would this case have had a good outcome if appropriate antibiotic treatment had been started in adequate dosage from the outset? Nobody can answer that question. That is not the question that we ever have to answer in the arena of medical malpractice litigation. When a bad result occurs and we find ourselves in the role of *defendant physician*, we have only to demonstrate by our medical record and the testimony of supporting colleagues that we have acted within an acceptable standard.

BALTIMORE

April 1992						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
			TMA 157TH ANNUAL MEETING Opryland Hotel—Nashville			
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

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# AMA Policy on HIV Infection

## HIV and Physicians

At the direction of the House of Delegates, the Board of Trustees submitted a comprehensive report that reviewed the many complex issues surrounding the testing of health care workers for HIV infection, including:

- Possible practice restrictions for HIV-infected health care workers,
- Role of a local review committee to monitor and advise the HIV-infected health care worker,
- Identification of exposure-prone procedures,
- Need for infection control procedures,
- Commitment to patient safety,
- Rights of health care workers, including the right to confidentiality of their medical condition,
- Appropriateness of mandatory physician testing,
- Frequency of HIV testing for physicians,
- Relationship of testing to licensing, staff privileges, credentialing, and liability insurance.

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**See editorial comment in this issue.**

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After long and thoughtful debate the House referred some suggested modifications to the Board for its consideration and adopted the following recommendations contained in this report:

## Infection Control Procedures

*Recommendation 1:* All health care workers, including physicians, should observe universal precautions and proper infection control guidelines. Hospitals should establish procedures to see that these precautions are strictly enforced and that educational programs covering proper infection control procedures are available for all health care workers.

## HIV-Infected Physician

*Recommendation 2:* Any physician who performs exposure-prone procedures should voluntarily determine his serostatus on a frequency appropriate for the risk. The periodicity will vary according to locale and circumstances of the individual and the judgment should be made at the local level. A physician who tests negative for HIV should voluntarily determine his HIV serostatus at an appropriate period of time after any significant occupational or personal exposure to HIV. Follow-up tests should occur after a time interval exceeding the length of the "antibody window."

*Recommendation 3:* A physician who performs exposure-prone procedures and becomes HIV-positive should disclose his HIV-infected status to a local review

panel as defined in previous AMA policy. The local review panel should establish practice limitations, if any, for all HIV-infected physicians. In determining what the practice of an HIV-positive physician will be, the panel might consider morbidity and mortality experience of the physician in question, and the frequency with which the physician performs the following:

- Procedures that have been associated with injuries to physicians in the course of surgery;
  - Procedures that are conducted in confined or difficult to visualize anatomical spaces; and
  - Procedures where a physician's blood is likely to come in contact with a patient's mucosal surfaces, open surgical wounds, or blood stream.
- Procedures that have been known to be involved in hepatitis B virus (HBV) transmission; the AMA recommends that for those groups who feel the need to implement specific restrictions, they may wish to consider using the HBV model as a surrogate. However, it should be recognized that HBV is 100 times more transmissible than HIV.

*Recommendation 4:* The local panel should be empowered to monitor the HIV-infected physician for compliance with any practice limitations established by the committee, advise the physician on the need to inform patients of his HIV status, monitor the infected physician's compliance with universal precautions, and assess the effects of the disease on physician competence as AIDS progresses. Physicians and others who participate in making these decisions must be protected from legal challenges and personal legal responsibility.

*Recommendation 5:* The AMA recommends that any HIV-infected physicians who repeatedly violate local committee-imposed practice limitations and/or universal precautions be reported to state licensing boards for possible discipline.

*Recommendation 6:* An HIV-infected physician should either refrain from doing exposure-prone procedures, or perform such procedures with permission from the local review panel and the informed consent of the patient.

*Recommendation 7:* The AMA should reaffirm its previous policy and remain opposed to mandatory testing.

*Recommendation 8:* The AMA should reaffirm its opposition to mandatory reporting of HIV-infected and HBV-infected physicians to state licensing boards until there is conclusive evidence that such infected physicians pose a significant or measurable risk to patients.

*Recommendation 9:* The AMA recommends that educational programs covering practical and didactic aspects of universal precautions and infectious control



procedures be conducted for all health care workers, and especially for physicians who practice invasive procedures.

*Recommendation 10:* The AMA should reaffirm its policy that all HIV-positive people, including physicians and other health care workers, be confidentially reported to the state boards of health.

*Recommendation 11:* The AMA should remain opposed to HIV testing as a condition of hospital medical staff privileges.

*Recommendation 12:* The AMA should open dialogue with the professional liability insurance companies to explore issues surrounding HIV-infected physicians and liability coverage. These discussions should include the position that to date there are no scientific grounds to require testing of physicians for HIV serostatus.

### Office Verification

*Recommendation 13:* The AMA should explore the feasibility of developing a voluntary office visitation program to assess the policies, procedures, and education programs that are in place concerning prevention of HIV/HBV transmissions. This effort would include exploring the feasibility of developing minimal guidelines for physician offices.

### Confidentiality

*Recommendation 14:* The confidentiality of the HIV-infected physician should be protected as with any HIV patient.

### Education

*Recommendation 15:* The AMA should continue and enhance its campaign to educate patients on the extremely small risks of iatrogenic (physician induced) HIV infection. Public education should include information about the route of transmission, the effectiveness of universal precautions, and the efforts by organized medicine to ensure that patient risk remains immeasurably small. This program should include health care worker education as appropriate and methods to manage patient concern about HIV transmission in medical settings.

### Research

*Recommendation 16:* The AMA should encourage further research to assess the risk of HIV transmission in specific surgical techniques and how any such risk may be decreased: the frequency of health care worker cuts and punctures, subsequent health care worker blood contact with the patient, and other possible avenues that might support infection transmission. Additionally, cooperation of the medical community and patients should be encouraged in scientifically sound retrospective studies designed to further define the risk of HIV transmission from an infected doctor to a patient, and to determine if there is any scientific basis for the development of a list of exposure-prone procedures.

### Health Care Workers' Safety

*Recommendation 17:* Employees of the health care system who might be at risk of contact with infected

fluids, e.g., blood bank technicians, should be afforded the protections suggested by OSHA, and at a minimum, universal precautions must be utilized by all personnel working in blood banks. The AMA will analyze and evaluate the recently released OSHA "Bloodborne Standards" concerning its impact on physicians, physicians' offices, and health institutions.

### Patient Protection

*Recommendation 18:* When the scientific basis for patient protection policy decision is unclear, physicians must err on the side of protecting patients.

### CDC

*Recommendation 19:* The AMA should continue to work with CDC in managing the AIDS epidemic.

### Other Actions

In other related actions concerning AIDS, the House adopted the following resolutions:

- That the AMA review the federal laws, including the Veteran's Benefits and Services Act, which currently mandates prior written informed consent for HIV testing within the Veterans Administration Hospital system, and subsequently initiate and support amendments allowing HIV testing without prior consent in the event that a health care provider is involved in accidental puncture injury or mucosal contact by fluids potentially infected with the HIV virus in federally operated health care facilities.

- That the AMA support adequate funding and implementation of public health measures to help stop the spread of HIV/AIDS;

- That all patients who know they are HIV-positive should be asked to notify their physician of their HIV-positive status.

- That the AMA adopt the policy that physicians should be allowed, without explicit informed consent, and as indicated by their medical judgment, to perform diagnostic testing for determination of HIV status of patients suspected of having HIV infection;

- That the AMA adopt the policy that general consent for treatment of patients in the hospital be accepted as adequate consent for the performance of HIV testing;

- That the AMA develop model state and federal legislation, and work with the CDC to permit physicians, without explicit informed consent, and as indicated by their medical judgment, to perform diagnostic testing for determination of HIV status of patients suspected of having HIV infection;

- That the AMA reaffirm its policy that the denial of care within the expertise of the individual physician on the basis of a patient's HIV status is a violation of medical ethics (Council on Ethical and Judicial Affairs Report A, I-87).

- That the AMA study the problems for health care workers that stem from apparent conflicts in laws between informed consent on the one side, and privacy, confidentiality, and employment discrimination on the other.



# The New Medicare Physician Payment System

By now, physicians should have received their "Dear Doctor" letter from their Medicare carriers. With these letters, or under separate cover, they should also have received a list of their 1992 Medicare payments and limiting charges for the services that they typically provide. This is the same information that the carriers must furnish every year.

Some of these 1992 payment levels have caused great concern for the physicians who have received them. Not simply because they represent a reduction in payments but because some of these declines appear far in excess of what these physicians have been led to expect given that payment cuts for 1992 are to be limited to 15% of the full payment schedule amount. In other cases, anticipated payment increases did not occur.

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**See editorial comment in this issue.**

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Because the Final Rule on the New Medicare Physician Payment System was issued in November and the carriers began sending the "Dear Doctor" letters on Nov. 25, there was a great need for information on how this new payment system would affect America's physicians. The AMA scheduled an open forum on Sunday, Dec. 8, provided videotapes, and issued several "White Papers" on the subject. After lengthy debate in the Reference Committee and on the floor of the House, the delegates adopted the following policy statements to guide the Association in the coming months:

- That the AMA take the position that the RBRVS-based Medicare physician payment schedule requires substantial improvements in many of its key elements and that the AMA cannot endorse this new system until substantial improvements are made.

- That the AMA publicize and seek to extend HCFA's grace period on the new visit codes an additional two months until April 1, that it continue its comprehensive program to educate physicians on the proper use of these codes, and that it work to ensure that HCFA engages in only educationally oriented profiling and review of the usage of these new codes until at least July 1, 1992.

- That the AMA undertake an immediate analysis of the implementation of the new Medicare payment schedule, with a focus on whether carrier implementation is consistent with Medicare law and HCFA regulations, especially with regard to calculation and applica-

tion of the Adjusted Historical Payment basis, and that the AMA take whatever steps are needed to correct and alleviate errors in the final schedule.

- That the AMA reaffirm and continue efforts in support of its policy to prevent any further reduction of the current Medicare limiting charges (i.e., balance billing limits of 140% for evaluation and management services and 125% for all other services).

- That the AMA seek a second Medicare participation decision period between June 1 and July 1, 1992 to allow physicians to reconsider the decision that they were forced to make in December 1991 on the basis of often limited information.

- That the AMA expand its efforts to seek replacement of the current flawed proxy data basis for Medicare's geographic practice cost indexes (GPCIs) with current data that reflect actual practice overhead costs, and that the AMA work to ensure that the professional liability component of both the GPCIs and the RBRVS more accurately reflect the actual cost experience of the physicians providing services to Medicare beneficiaries, including specialty-level differences in these costs.

- That the AMA assign a continued high priority to legislative correction of grossly inequitable elements of Medicare physician payment policy as the lack of any payment for interpretation of EKGs, discriminatory payment reductions for "new" physicians, unfounded payment limits for the services of assistants-in-surgery, definition of "new" patients, and the discriminatory 50% copayment for mental illnesses.

- That the AMA establish a comprehensive program to monitor changes in patient access, physician practice patterns, and errors in carrier implementation under the new Medicare physician payment schedule, working closely with state and county medical societies, and that the AMA work with HCFA to correct all identified deficiencies in this program.

- That the AMA seek to achieve adequate funding for Medicare carriers as they implement the RBRVS.

- That the AMA work with HCFA and the national medical specialty societies to clarify HCFA's new global payment policy and to disseminate accurate information to physicians on these policies.

- That the AMA Board of Trustees study and report to the House on the status and background of the "behavioral offset" and the "baseline adjustment" with an emphasis on the history of the use of these adjustments in Medicare Part B, including application to the

RBRVS conversion factor and the MVPS.

- That the AMA intensify its Payment Reform Education Project to provide all possible assistance to physicians as they adjust to and cope with the new Medicare payment schedule and that it evaluate the initial implementation of the new payment system, soliciting input from the entire Federation, and commenting, as appropriate, to HCFA as part of the 120-day comment period on the relative values for the new system and as otherwise appropriate.

In related actions the House stated that the sole purpose of medical licensure is to assure the competence of physicians to practice medicine and voted to:

- Oppose any attempt to tie medical licensure to a physician's obligation to take part in any payment system or plan, including Medicare.

One resolution addressed a concern that certain limited licensed practitioners would be reimbursed at the same rate as physicians. The delegates adopted the following policy statements:

- That the AMA take immediate action to demonstrate that services provided by fully licensed practitioners are indeed substantially different from identically coded services provided by limited licensed practitioners because the training required for a full license brings a broad range of experience and insight to a service that a limited licensed practitioner lacks by definition;

- That the AMA advocate development and use of a code modifier to identify Medicare services provided by limited licensed practitioners;

- That the AMA advocate that Medicare expenditure data clearly differentiate between the services of fully licensed physicians and those of limited licensed practitioners and of other Part B services;

- That the AMA conduct a legal analysis on the extent to which provision in the Social Security Act and the Omnibus Budget Reconciliation Act of 1989 limit the ability of the Health Care Financing Administration to reflect acknowledged differences between fully licensed and limited licensed practitioners in Medicare payments.

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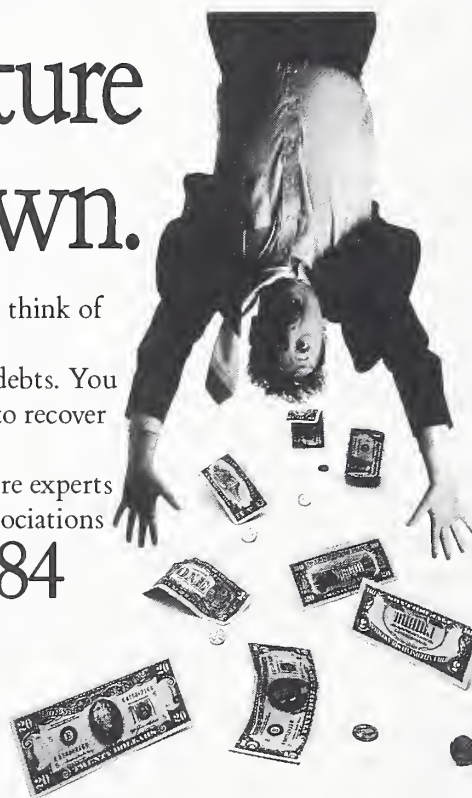
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HOWARD L. SALYER

## *A New Beginning With Old Friends*

January is often considered to be a time of new beginnings . . . a time to evaluate current situations and develop new plans. The January meeting of the Tennessee Medical Association's Board of Trustees was not an exception to that rule, and I am happy to be the first to tell you about some exciting changes and developments that occurred during this meeting.

### *With old friends . . .*

First and foremost, Hadley Williams, the TMA's executive director since 1976 and employed by the Association since 1963, has been promoted by the Board to chief executive officer in recognition of his tremendous achievements and hard work. He was instrumental in establishing State Volunteer Mutual Insurance Company. Under his leadership the TMA increased its membership by more than one-third, and numerous activities and programs were created and implemented. To say the very least, I am extremely grateful for all of Hadley's capabilities and visionary outlook, and we all wish him well as he begins a new chapter in his work with the TMA.

### *Come new leaders . . .*

Don Alexander, a 20-year veteran of the TMA and associate executive director since 1985, is a long-time friend of many TMA members and is known as a man of numerous abilities and far-reaching achievements. Recognizing this, the Board of Trustees chose Don to fill Hadley's shoes as executive director. I am very excited about the role that Don will play in the further development of the TMA—his personality and proven ability to lead will help us tremendously as we face the challenges and changes awaiting the field of medicine in the 21st century. Congratulations, Don!

So here's to new beginnings . . . old friends . . . new leaders . . . and the future of the Tennessee Medical Association.

*Howard L. Salyer M.D.*

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**MARCH, 1992**

# editorials

## Tidings from Las Vegas

There is usually both good news and bad news from Las Vegas, but generally speaking you can count on the bad news getting top billing as a winner. I saw a fortunate few fly out of McCarran International Airport, one of them the wife of one of our delegates, who deprived the casino of some \$3,000; most times it is the other way around. One delegate told me of having watched a man cash in his airplane

ticket to pay his hotel bill, and then walk out the front door, "I guess," he said, "to walk all the way to L.A." I'd say the delegates to the AMA Interim Meeting, held this year in Las Vegas, had the distinct feeling that American medicine, and by indirection the American public, was walking away from Las Vegas in a barrel. If there is any good news for me to report to you, I can't recall what it might be.

An enormous amount of time and energy was absorbed by just two issues, an amount that would seem inordinate were it not for their impact on medicine and the public. The first item concerned AMA policy regarding HIV infections; since I have written a separate editorial on that, referring you to a Special Item that summarizes the situation, I'll say no more about that here. The second has to do with the new Medicare payment system, which I have also referred to in yet another editorial. I may have worn out its welcome, if one can use that word in the same breath with Medicare payment (or perhaps more appropriately, lack of it), but it's rare that consensus is reached in the House of Medicine, and so I propose to pursue the matter.

The consensus was that the AMA has been betrayed by both the Congress and the Bush administration, the AMA having taken a leadership position in developing the RBRVS for the sole purpose of redressing inequities in Medicare reimbursement that had resulted in undercompensation of certain groups within the profession. The RBRVS was adopted by the Congress for Medicare reimbursement, with the promise that it would never be used as a cost-saving measure. This betrayal of the profession by HCFA, which has profited no one (just as I predicted), has been the basis for a flood of resolutions at both this and the previous session of the House.

I have decided that because there are so many ramifications of the various actions taken by the House of Delegates addressing the Medicare payment system, that rather than reinvent the wheel I shall publish as a second Special Item the Speakers' summary of those items, and say no more about the matter here, except that the House took exception to the Medicare regulation that reimburses "new" doctors, as defined by law, at a lower rate than their established peers; the House called for that to be rectified. Instead of dwelling further on Medicare, though, I have some fulminations to deliver about some other gratuitous government impedimenta to the efficient and effective practice of medicine.

Any of you who happen to be involved with professional liability carriers know that the National Practitioner Data Bank has made it practically impos-



sible to settle any claim, since the data bank effectively criminalizes the thousands upon thousands of doctors who practice good medicine but occasionally have an expected, unavoidable bad outcome, for which they get sued, in company with the very few doctors who do not practice good medicine. Further, the data bank contributes to the setting of quotas: if 5% of doctors are incompetent (a figure some idiot once came up with, which has survived him), then at least 5% of doctors need to be in the data bank. So who is it that is protecting the bad ones? (PROs get stuck with the same nonsense.)

The House declined, by a wide margin, to accept the line espoused by the Board of Trustees that they are working to effect changes in the data bank, and that to adopt a resolution advocating active efforts to abolish it, which they view as fruitless, would adversely affect those efforts. The House viewed that as sheer nonsense. The House made plain that there is no point in attempting to make less odious a mechanism that is odious on its face and never had any merit to begin with. And so the House instructed the Board to work with all due haste and aggressiveness to abolish the data bank. Despite its contrary protestations, the Board has never impressed me that it is overly dutiful or meticulous in following orders given it by the House over its objections. We shall see.

Conflicts of interest have had a lot of exposure lately, some of it warranted and some likely not. It has been decreed that a doctor may not have an investment interest in equipment or a facility to which he refers patients. New guidelines of the AMA made the exceptions that it will be considered ethical if there is a demonstrated need in the community and alternative financing is not available.

Sexual harassment, violence against women, and family violence received extensive attention and were roundly condemned, with attempts to exorcise them all. Responding to previous calls for enforcement of the AMA Code of Ethics, a report spoke of education efforts toward that end, and recommended a process for implementing the program through cooperation with the Federation, specialty societies, and hospital medical staffs. A resolution was adopted revealing that so-called non-alcoholic beer does in fact contain alcohol, and calling for the beer to be factually labeled.

Attempting to summarize the 90 reports and 214 resolutions is daunting, to say the least, and it is a task I am not up to; I shall therefore leave that to *AM News*, which has already thoroughly covered most of it. I just had a few licks I wished to get in. And so, with that, I shall sign off.

J.B.T.

## AMA Policy on HIV Infection

During the Interim Meeting of the AMA House of Delegates last December, the House considered more than a dozen items having to do with infection by the human immunodeficiency virus (HIV). After hearing a great amount of testimony and debate, it made a series of recommendations, a summary of which we carry elsewhere in this issue of the *Journal*. In addition to a lengthy report by the Board of Trustees concerning HIV and the physician, several resolutions had to do with the relationship and obligations of infected individuals generally to the public. The past few years have seen the waning of the influence of a powerful pressure group that has protected its own interests and the assumed rights of the infected few at the expense of and with total lack of regard for the rights and the health of the uninfected public. The House of Delegates has gradually shifted from a protective stance to one of treating HIV infection as the communicable disease it is, with infected individuals rightfully subject to the same regulations as those with any other sexually transmitted disease.

J.B.T.

## New Year's Musings, and Whatnot

Here it is 1992 already, and it actually has been for nigh onto 36 hours now. Business has started up again, sort of, even if in a somewhat desultory fashion. Schools are still out, and so are a lot of the brains that make all sorts of things go—or if not out, they seem at least to be still out of gear even though the bodies that support them may be on board. For instance, in the doctors' lounge in the hospital where I work, all I heard in conversations today was a rehashing of the various football games of yesterday, and a lot of second guessing, particularly as to when and why down in Tucson the wheels fell off of Johnny Majors' little orange wagon.

Those were not the only wheels to fall off during the bowl season, of course; some others were vividly displayed before the world, though none fell quite so spectacularly as Johnny's. I hope you noted my use of the word "season" in reference to bowls. When I was growing up, the bowl season consisted of the Rose Bowl, which reigned in solitary splendor for years. Knowing a good thing when they saw one, the promoters in New Orleans invented the Sugar Bowl. After the Cotton Bowl (not bole, this time) was



formed, things came unzipped, and we now have, unless I have miscounted, 13 or so bowl games, with a few more special games, such as the all-stars and Blue-Gray, thrown in for good (or bad, depending on your orientation) measure. For those who are offended by such a plethora, other plethoras abound, so that no potato is deprived of a comfy spot on some couch, though he might have to pick and choose; he might, in fact, on New Year's Day have to go solo.

No one will ever know, of course, how many wheels came off of the assorted vehicles of the even more assorted owners in the inner darkness that for assorted reasons often accompanies the holiday season, particularly New Year's Eve. It is likely that even the owners themselves may, again for assorted reasons, in some instances be ignorant of their own derailments. Such things as the plethora of bowl games and their outcome generally pale by comparison any time the couch becomes simply a place for soaking one's head while trying to sort out the assorted assortments either mentioned or unmentioned above. (Indeed, some of them might even be unmentionable, again for assorted reasons that I either can't or won't pursue.)

Having gone on for several paragraphs now without having said anything of note, I shall now note something that is, unfortunately, not only worth saying, but is, even more unfortunately, crucial to your practice, not to mention your peace of mind—that is if after reading what I have to say you have any peace of mind left.

For anyone just looking to be offended I have for you something *really* offensive that happened quietly, without ruffles, drums, or flourishes, even as the gladiatorial combat was in progress on New Year's Day. Despite their having been done up in a bow and widely circulated, it was the consensus of those of us assembled in the meeting of OSMAP (the Organization of State Medical Association Presidents, comprising presidents-elect, presidents, and past presidents forever and ever, amen) at the AMA meeting in December that most doctors have still paid scant attention to the coding requirements for reimbursement under Medicare, which became effective Jan. 1, 1992; hence, they are going to wake up in about three months, which is about when you will be reading this, and wonder where the money went. Unless you had started using the required coding for diagnoses and procedures, where the money went after Feb. 1, which is the end of the grace period, was nowhere. The SMAPs, past, present, and future, figured Medicare would save a lot of money for a not inconsiderable while that way. What all that goes to prove is that the U.S. gum'mint is at least as effec-

tive and ready a cause of wheels falling off little red wagons as either bowl games or bad booze, and maybe anything else you can think of.

The *Wall Street Journal* carried a story the other day about the injudicious custom big corporations have of increasing the salaries of their top executives even while seeking Chapter 11 protection from their creditors. At the same time General Motors, for instance, announced that as an economy measure it would over the next few years be closing 25 plants, and was eliminating thousands of jobs, and just as pink slips were being distributed in lieu of Christmas bonus checks, the chairman was being paid \$1.2 million. At the same time that the flow of pink slips continues unabated, so does the stream of those dollars into the chairman's pocket. It is a little hard, the newspaper observed, for management to generate a whole lot of sympathy among the workers when the chief executive is hauling down a hundred times as much money as they are. In such a situation lurks the ever-present danger that workers and chief executives will become institutionalized, as happened in Red Russia to bring on the Bolshevik Revolution. The wheels of that bandwagon fell off only when the proletariat realized that bureaucrats are made and not born.

I trust you are able to follow my line of reasoning into our own present situation. Being willing to follow it requires a bit more of you. If it offends me that entertainers—and in that I include professional athletes—have multimillion dollar contracts, I can refuse to patronize their offerings or their games or whatever. To the extent that I do patronize them, I abrogate my right to protest their income. Since none of their offerings is really essential to my welfare, contributing or not to their income is my unfettered choice.

Medical care, on the other hand, is sometimes a necessity, so that its recipient has no such choice, or at least so says conventional wisdom. Americans, though, are resourceful cusses, and are liable to invent choices where none appear to exist. The Mercedeses and the Bentleys in the garage of the million-dollar homes of some doctors has eventuated in increasing numbers and kinds of alternative providers of health care whose services don't come so dear, and in the patronizing of those alternative providers by conscientious objectors to the Mercedeses and the Bentleys in the garage of the million-dollar homes of those whose services do come so dear, or at least so it seems to their users.

It also translates into the congressional mentality that led to the RBRVS and other such measures designed to prevent doctors from capitalizing, as they



see it, on the misfortunes of the lame, the halt, and the blind. There are not, either, a whole lot of directions toward which we doctors can look for help toward redressing any perceived wrongs, or even for sympathy, for that matter. The ol' 1.2 mil of the CEO is threatened by the rising costs of the workers' health care package, with the result that big business (read CEOs), our former ally, has now become our adversary. The workers themselves, who are having to buy an ever bigger slice of the pie themselves, are shopping around for cheaper sources of care. Though it is the whole system that has gotten out of hand, it is the doctor who has become the scapegoat. And why not?

Any rational person should be able to see clearly that the fault is a shared one, but even rational people can behave irrationally where money is concerned, and for various reasons health care involves a *lot* of the money of a lot of the people. Only some of these reasons have to do with doctors. Even more of them have to do with bureaucrats, but we doctors are the ones to emerge as the sitting ducks. Not only are we the only visible individual entities involved, making us a convenient target toward which the individual patient can direct his ire, but as a group, doctors are also seen as an ostentatious part of the problem, and therefore fair game.

It wasn't so very many years ago that the bandwagon of medicine was clattering along down the way toward what looked to be utopia; what now lies ahead looks to me a whole lot more like a precipice. There aren't as many people riding on it anymore, either; a lot of those who were once riding now seem to be on the sidelines cheering it on to its destruction; Washington is certainly well represented there. Maybe pulling the linchpins and letting the wheels fall off would prevent its going over the precipice, but it would sure stall the progress that has been building up for the last 40 or so years. Right now, though, I'm not even sure where this simile is going, let alone the bandwagon, either now or later.

The Phoenix, according to Greek legend, was a fabulously beautiful Egyptian (or, depending on where you read it, Arabian, or Indian) bird, the only one of its kind, which at the end of its allotted years made for itself a nest of spices. After singing a melodious dirge, the Phoenix set fire to its nest by flapping its wings, thereby immolating itself, but each time there arose from the ashes a new and even more beautiful Phoenix.

For obvious reasons, the Phoenix has been used as a symbol of the Resurrection and of the alchemists alike. When the wheels come off of our little red wagon, or it jumps over the precipice, as one or the

other of which it seems in imminent danger of doing, speaking now as a generic American citizen I see only three choices open to us. We can patch up the system that now exists, which is appearing less and less likely as a viable option. We can allow the Phoenix to resurrect itself as something even more beautiful than it was. (I must confess I don't know what that might be, except desirable, and wondrous.) Or we could go down with the dross of the alchemist. (I think I do know what that would be, but I also think the American people—not their leaders, but the people—know, too, and know better than to allow that to happen. I wish, though, I could be sure that's not misplaced optimism.)

If the medical profession would only pull together, we could make a difference, and keep the wagon rolling along on its track of progress and excellence, but so far there has been no indication that is likely to happen. The splintering of medicine seems progressive, with each new splinter intent on following the example of the older ones in pursuing its own course of self-interest. That is, after all, the way of human nature. We remain, it would seem, our own worst enemy, with the possible exception of Teddy Kennedy, Pete Stark, and HCFA.

J.B.T.

### **TMA Members Receive AMA Physician's Recognition Award**

The following TMA members qualified for the AMA Physician's Recognition Award during December 1991. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1.

*Janet D. Brown, M.D.*, Johnson City  
*Oscar W. Carter, M.D.*, Nashville  
*Craig M. Coulam, M.D.*, Nashville  
*Meredith A. Ezell, M.D.*, Nashville  
*William D. Falvey, M.D.*, Memphis  
*John G. Huff, M.D.*, Nashville  
*Gary H. Lipscomb, M.D.*, Memphis  
*Michael L. Pool, M.D.*, Knoxville  
*Mark A. Talley, M.D.*, Chattanooga  
*Edward L. Tarpley, M.D.*, Nashville  
*William S. Weir, M.D.*, Bristol  
*Cynthia C. Youree, M.D.*, Brentwood



*Roscoe C. Kash*, age 85. Died December 29, 1991. Graduate of Vanderbilt University School of Medicine. Member of Wilson County Medical Society.

## personal news

*B.L. Holladay, M.D.*, a physician in Centerville for 23 years, has been selected as the Town of Centerville's Man of the Year for 1991.

The following TMA members have been named Fellows of the American College of Surgeons: *Paul A. Hollier, M.D.*, Erwin; *Thomas M. Reynolds, M.D.*, Chattanooga.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### BRADLEY COUNTY MEDICAL SOCIETY

*Felicio E. Fernando, M.D.*, Cleveland  
*Clyde Alexander Kyle III, M.D.*, Cleveland

### CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

*H. Brian Balfour, M.D.*, Chattanooga

### KNOXVILLE ACADEMY OF MEDICINE

*R. Christopher Brooks, M.D.*, Knoxville  
*John V. Davis, M.D.*, Knoxville  
*Stephen C. Davis, M.D.*, Knoxville  
*Tracy W. Dobbs, M.D.*, Knoxville  
*Thomas Eberts, M.D.*, Knoxville  
*Scott B. Frame, M.D.*, Knoxville  
*Linda Green, M.D.*, Knoxville  
*Jeffrey A. Keenan, M.D.*, Knoxville  
*Daniel P. Logan, M.D.*, Knoxville  
*Scott A. Rosenbloom, M.D.*, Knoxville  
*Charles H. Williams Jr., M.D.*, Knoxville

### LAWRENCE COUNTY MEDICAL SOCIETY

*Clayton Don Wilson, M.D.*, Lawrenceburg

### MAURY COUNTY MEDICAL SOCIETY

*Jeffrey Thomas Adams, M.D.*, Columbia  
*Jeff C. Kirkpatrick, M.D.*, Columbia

*Mary S. McKee, M.D.*, Columbia  
*Richard Stults, M.D.*, Columbia

### McMINN COUNTY MEDICAL SOCIETY

*Donald F. Ramsey, M.D.*, Athens

### MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

*Manuel F. Carro, M.D.*, Memphis  
*Jesse Theo Davis Jr., M.D.*, Memphis  
*Isaac Mitrani Jalfon, M.D.*, Memphis  
*Gregory Keith Jenkins, M.D.*, Memphis  
*Robert Alan Johnson, M.D.*, Memphis  
*George Hawerth Latta III, M.D.*, Memphis  
*George W. Maier, M.D.*, Memphis  
*Mary Thomas Moss, M.D.*, Memphis  
*Kenneth Ray Pate, M.D.*, Memphis  
*Rebecca B. Saenz, M.D.*, Memphis  
*Terry P. Templeton, M.D.*, Memphis  
*Michael Trotter, M.D.*, Memphis  
*William Alan Walker, M.D.*, Memphis  
*Arthur J. Wilson, M.D.*, Memphis

(Students)

*Chris H. Aikens*, Memphis  
*Gisele Allen*, Memphis  
*Scott Michael Anfinson*, Memphis  
*Amy Barger*, Memphis  
*Robert Paul Baronowski*, Memphis  
*Kimberly Gaye Barrett*, Memphis  
*Kecia Michelle Barrick*, Memphis  
*Kris Ann Beasley*, Memphis  
*Mary Elizabeth Benton*, Memphis  
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*John Thomas Beuerlein*, Memphis  
*James William Boals Jr.*, Memphis  
*Michael David Calfee*, Memphis  
*Sharon Denise Carpenter*, Memphis  
*John Wallace Chambers Jr.*, Memphis  
*Kelli Michelle Charles*, Memphis  
*Clarence Gregory Childress*, Memphis  
*Sheryl Chantay Chism*, Memphis  
*Peter Valentine Claussen*, Memphis  
*Mark William Cloud*, Memphis  
*David Lawrence Cobb Jr.*, Memphis  
*Leslie Susan Collins*, Memphis  
*Michael James Conrad*, Cordova  
*Jessie Lee Copeland Jr.*, Memphis  
*Irwin Craig*, Memphis  
*Thomas M. Cunningham III*, Memphis  
*Perry Dobyns*, Memphis  
*Rita Wesley Driggers*, Memphis  
*Christy Farmer*, Paris  
*Samuel Eric Farnsworth*, Memphis  
*Stephen Ray Feagins*, Memphis  
*Max Cortez Finch*, Memphis  
*Helen Horn Fincher*, Memphis  
*John Robert Fox*, Memphis  
*Lana G. Fox*, Memphis  
*Brian S. Gannon*, Memphis  
*Andrew Getzoff*, Memphis  
*David Ray Gillenwater*, Memphis  
*Sarah Gillespie*, Memphis  
*Brenda Goodwin*, Memphis  
*Korin L. Gourley*, Memphis



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 Carol-Lynn B. Hethmon, Memphis  
 Christina Ann Holyfield, Memphis  
 Samuel David Jackson, Memphis  
 Kellie A. Jolley, Memphis  
 Ace Kazempour, Memphis  
 Wayne Scott Kelly, Memphis  
 Sayeedha Khan-Ghori, Memphis  
 Gregory L. Kirk, Memphis  
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 Elizabeth L. Libby, Memphis  
 Mark Anthony Long, Memphis  
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 Pamela Ruth Mann, Memphis  
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 Kerry Milligan, Memphis  
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 Jeffrey Alan Nix, Memphis  
 Arnel Pallera, Memphis  
 Christin C. Park, Memphis  
 Shilpa Patel, Memphis  
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 Michael R. Webb, Memphis  
 Kenneth S. Weiss, Memphis  
 Michael Alan Whitehead, Memphis

Kimberly Sue Wilkinson, Memphis  
 Catherine Womack, Memphis

#### NASHVILLE ACADEMY OF MEDICINE

Jordan Ross Acher, M.D., Nashville  
 Joseph Paul Bruner, M.D., Nashville  
 Leon D. Ensalada, M.D., Nashville  
 Wallace L. Friedman, M.D., Nashville  
 Michael W. Hays, M.D., Nashville  
 Bryan R. Kurtz, M.D., Nashville  
 Thomas Warren Lee, M.D., Nashville  
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 W. Dyer Rodes II, M.D., Nashville  
 John Paul Tetzeli, M.D., Nashville  
 David R. Uskavitch, M.D., Nashville  
 Pat W. Whitworth, M.D., Nashville  
 Sorrell Louis Wolfson, M.D., Antioch

#### SEVIER COUNTY MEDICAL SOCIETY

Richard S. Murphy, M.D., Kodak

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

April 1-3	American Group Practice Association—J.W. Marriott, Washington, D.C.
April 1-4	American Association of Suicidology—Westin, Chicago
April 1-4	American Burn Association—Marriott, Salt Lake City
April 1-4	American College of Physicians—Washington, D.C.
April 2-4	International Society for Heart & Lung Transplantation—Marriott, San Diego
April 2-5	American Society for Addiction Medicine—Ramada Renaissance Techworld, Washington, D.C.
April 4-8	American Society of Clinical Hypnosis—Riviera, Las Vegas
April 4-9	American Society of Clinical Pathologists—Sheraton, Boston
April 4-9	College of American Pathologists—Sheraton, Boston
April 5-8	American Society of Abdominal Surgeons—National Study Center for Continuing Medical Education, Tampa
April 5-9	American Association of Pathologists—Hilton, Anaheim, Cal.
April 5-10	American Physiological Society—Marriott, Anaheim, Cal.
April 8-12	International College of Surgeon, US Section—Fairmont, Chicago
April 11-12	American Laryngological Association—Marriott Desert Springs, Palm Desert, Cal.
April 11-15	American Radium Society—Walt Disney World Swan, Orlando
April 11-16	American Association of Neurological Sur-

April 12-15	geons—Marriott Moscone, San Francisco	May 6-10	American Society of Hypertension—Hilton, New York
April 12-15	American Society of Contemporary Ophthalmology—Drake, Chicago	May 9-14	American Gastroenterological Association—Marriott, San Francisco
April 12-15	American Society of Contemporary Medicine and Surgery—Drake, Chicago	May 10-14	Aerospace Medical Association—Fontainebleau Hilton, Miami Beach
April 12-15	North American Primary Care Research Group—Omni, Richmond, Va.	May 10-14	American Urological Association—Grand Hyatt/Ramada Renaissance, Washington, D.C.
April 12-16	American College of Cardiology—Dallas	May 10-15	American Roentgen Ray Society—Marriott World Center, Orlando
April 14-16	American Laryngological, Rhinological and Otolological Society—Marriott Desert Springs, Palm Desert, Cal.	May 13-15	American Pediatric Surgical Association—The Broadmoor, Colorado Springs
April 22-26	American Society of Head and Neck Radiology—Inter-Continental, Chicago	May 13-16	American Cleft Palate-Craniofacial Association—Marriott, Portland, Ore.
April 23-26	Wound Healing Society—Richmond, Va.	May 15-17	Association of Reproductive Health Professionals—Ritz-Carlton, McLean, Va.
April 25-29	Society of Teachers of Family Medicine—Adam's Mark, St. Louis	May 15-18	American Orthopsychiatric Association—Hilton, New York
April 30-May 3	American Academy of Psychoanalysis—Vista International, Washington, D.C.	May 17-19	American Society of Clinical Oncology—Hilton, San Diego
May 1-2	Virginia Society of Otolaryngology-Head and Neck Surgery—Boar's Head Inn, Charlottesville, Va.	May 17-19	American Society for Laser Medicine and Surgery—Buena Vista Palace, Buena Vista, Fla.
May 1-3	American Society for Adolescent Psychiatry—Ritz-Carlton, Washington, D.C.	May 17-20	American Lung Association—Miami Beach
May 1-3	Christian Medical and Dental Society—Adam's Mark, St. Louis	May 17-20	American Thoracic Society—Miami Beach
May 1-4	American Association for the History of Medicine—Crowne-Plaza, Seattle	May 17-20	Society of Neurological Surgeons—Louisville
May 1-4	American Federation for Clinical Research—Hyatt, Baltimore	May 23-27	American Fracture Association—Hyatt Regency Grand Cypress, Orlando
May 1-4	American Society for Clinical Investigation—Convention Center, Baltimore	May 26-30	American Association of Mental Retardation—Hilton, New Orleans
May 2-7	American Psychiatric Association—Convention Center, Washington, D.C.	May 26-30	American Society for Microbiology—New Orleans
May 2-8	American College of Occupational Medicine—Sheraton, Washington, D.C.	May 27-30	American College of Sports Medicine—Loews Anatole, Dallas
May 3	American Academy of Psychiatrists in Alcoholism & Addictions—Washington, D.C.	May 30-June 2	American Sleep Disorders Association—Hyatt Regency, Phoenix
May 3-6	Association of American Physicians—Convention Center, Baltimore	May 31-June 3	Southeastern Surgical Congress—Westin Peachtree Plaza, Atlanta
May 3-6	Society of Cardiovascular Anesthesiologists—Sheraton, Boston	May 31-June 5	American Society of Neuroradiology—Adam's Mark, St. Louis
May 3-8	Association for Research in Vision and Ophthalmology—Hyatt, Sarasota, Fla.		
May 3-9	American Academy of Neurology—Convention Center/Marriott, San Diego		
May 4-5	American Laryngological Association—Hyatt Regency, Waikoloa, Hawaii		
May 4-7	American Pediatric Society—Hyatt, Baltimore		
May 4-8	Ambulatory Pediatric Association—Convention Center, Baltimore		
May 6-8	American Trauma Society—Hilton, McLean, Va.		

#### STATE

April 2-4	North American Society for Pediatric and Adolescent Gynecology—Nashville
April 8-11	Tennessee Medical Association, 157th Annual Meeting—Opryland Hotel, Nashville
May 7-9	American Society for Artificial Organs—Opryland Hotel, Nashville

## MISSING

Don't be among the missing at the Tennessee Medical Association's 157th Annual Meeting—April 8-11, 1992, at the Opryland Hotel in Nashville. Mark your calendar NOW so you won't miss out.



# Substance Abuse: AMA Fights Legal and Illegal Killers

Between 40 and 50 million Americans smoke. And over 400,000 die each year from tobacco-related disease alone. Even people who don't smoke are affected. Passive smoking kills as many as 53,000 nonsmoking Americans every year. This abuse drains over \$90 billion a year in medical expenses and lost productivity and wages.

Now add in the toll of alcohol and drug abuse.

Alcohol abuse cost our economy \$33 billion in lost earnings each year; drug abuse tops \$7 billion.

The toxicity of alcohol and drug abuse spreads into all areas of American life including family violence and crime. According to studies, 54% of prisoners admit to being under the influence of drugs at the time of their offense. In 1989, 45% to 83% of those arrested tested positive for one or more drugs.

*What is the AMA doing?*

The American Medical Association and its membership support a tobacco-free society by the year 2000.

The AMA has helped ban smoking on airplanes, began a mandate for smoke-free hospitals, and supported the Environmental Protection Agency in its classification of passive-smoke as a known-cause of cancer.

Reducing smoking among our nation's children, young women, minorities and those Americans with less formal education was the dominant issue of the "Final Report: Tobacco Use in America." Another key concern is the need for public policy-makers to recognize the powerfully addictive nature of nicotine which the report covers in its section on legislative and activist strategies.

The AMA supports efforts to ban and/or restrict tobacco advertising and promotion. We work to restrict teenagers' access to tobacco products by banning vending machine sales, raising the legal age of purchase to 21 and halting cigarette give-away promotions.

The AMA's policy-setting House of Delegates has gone to bat against smoking by opposing the tobacco industry's lucrative sponsorship of sports by calling for:

- major league baseball owners to ban smoking in parks,
- stopping tobacco company sports sponsorship and advertising, and
- cigarette warnings that say: "Smoking is ADDICTIVE and may result in DEATH."

In the continuing war on drugs and alcohol, the AMA supports its physicians' local efforts by publishing material to help physicians identify and evaluate drug abuse in their young patients and by developing a training program for physicians dealing with patients at high risk of drug abuse.

The AMA also works with federal and state enforcement agencies to create model systems to prevent prescription drugs from being diverted to "street" markets and drug abusers.

Working with the American Bar Association, the AMA is helping to educate junior high school students on the grim consequences of drug and alcohol abuse.

And, the AMA has demanded that alcohol advertising bear warning labels.

*What can you do?*

To battle tobacco use, support efforts to protect nonsmokers from passive smoke; urge your local pharmacist to refrain from selling tobacco products; encourage school systems to become smoke-free; ask for nonsmoking restaurant seats, hotel rooms and rental cars; and write the publishers of magazines and newspapers to remove tobacco advertisements.

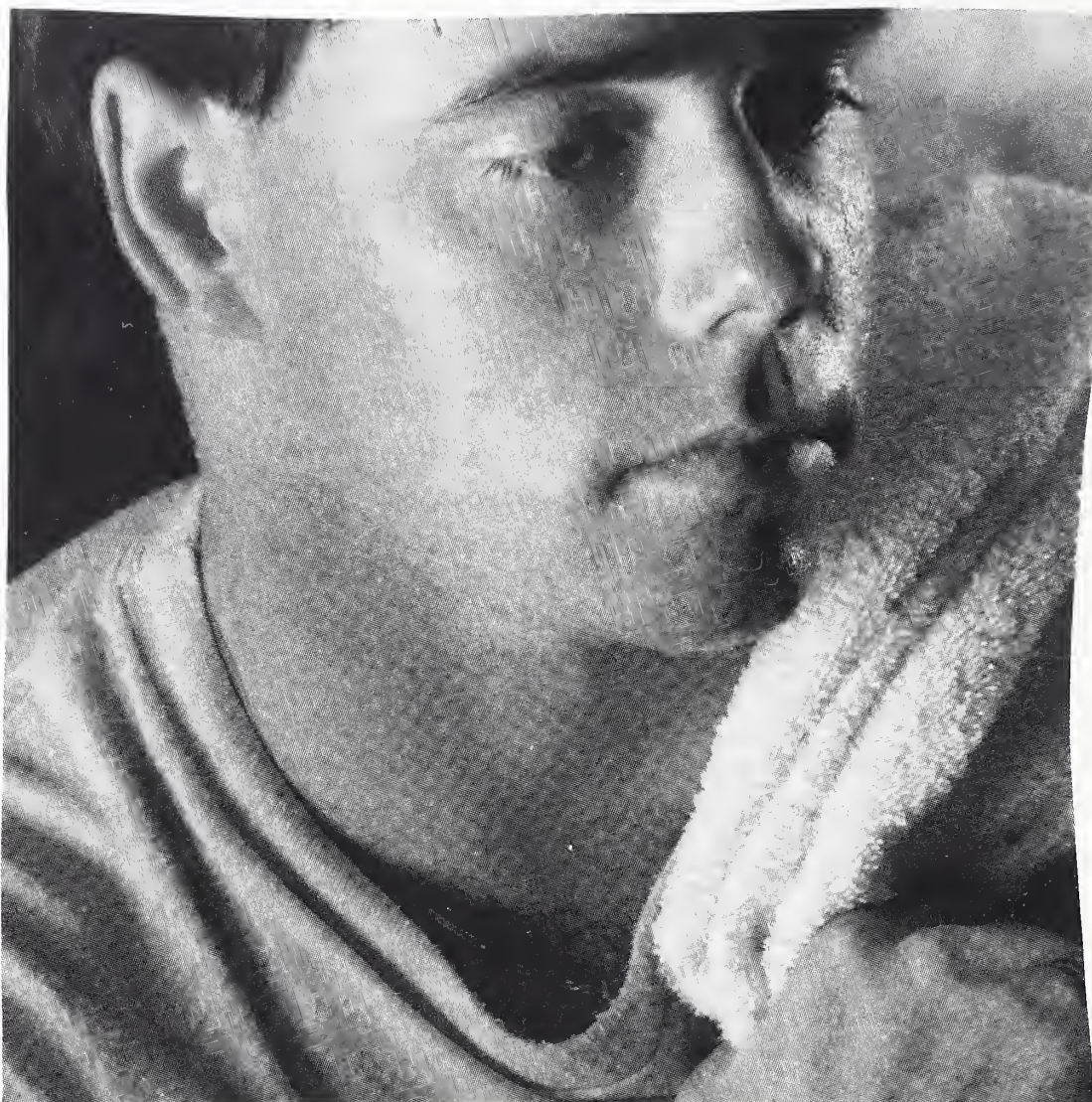
To combat drug and alcohol use, teach healthy lifestyles by example.

For all of us, the value of real-life experiences and achievement are the durable mainstays of pleasure and fulfillment.





*you mean this is what I've been training for all my life?*



He trains year-round on the weights and on the track. But it wasn't long ago when he thought the race was over.

A diving injury had left Sammy Shute a quadriplegic. That's tragic news for anyone, but especially someone like Sammy who's been an athlete all his life.

With a whole new set of issues to come to grips with in his life,

Sammy found the strength he needed in the therapy at MMRC.

"I looked at therapy as competition," he said. "To do something better than I'd done it before. I guess you could say I was in competition with myself."

Over time, the staff helped him realize that by giving 110 percent every day, there was a multitude of things a person could do in a wheelchair. Like racing, for example. He went on to become

an inspiration not only to others, but to the very people who'd been such an inspiration to him.

It's that one-on-one relationship between patients and staff that makes MMRC the South's leading rehabilitation center. If you don't believe it, come out to the races one day. You'll see the proud results from start to finish.



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## TMAA-Sponsored Health Education Facilities

The Tennessee Medical Association and the TMA Auxiliary have created health education facilities across the state. They have shown their concern for good health, and taught healthy choices and responsibility for the health of our bodies to over 56,000 schoolchildren.

In 1978, the Chattanooga-Hamilton County Medical Society and Auxiliary initiated a project through their Children and Youth Committee, to develop a health education center for the purpose of teaching preventive health education. The facility, Health House of Chattanooga, Inc., opened for classes on Feb. 14, 1984. Starting with one classroom and a third grade program only, the Health House has expanded into three classrooms and various programs for kindergarten through 8th grade. TAM (the Transparent Anatomical Manikin) and other dramatic three-dimensional exhibits create an atmosphere that intrigues students and enhances learning. These programs are designed to complement the state health and science curriculum. Over 53,000 students have benefited from this program due to the continued professional leadership and financial support from the Auxiliary.

In 1979, the Nashville Academy of Medicine Auxiliary formed a partnership with the Cumberland Science Museum to create a "Health Hall" at the museum. Auxiliary members raised over \$700,000, created the teaching programs, and helped design the exhibit space of this permanent health education facility. Health Hall provides a learning lab with a hands-on learning experience for school groups and includes classes on nutrition and physical fitness, heart and circulation, five senses, alcohol and drug abuse prevention, and brainpower. Health Hall also includes a permanent exhibit on the brain, kidney, growth and development, respiratory system, and a Health Discovery Area is in the planning stages. The museum is

now totally responsible for Health Hall, but many Auxiliary members continue to be involved with planning and teaching classes, raising funds, and are active on the museum board.

The Memphis and Shelby County Auxiliary under the direction of Ruth Crenshaw collected medically historical items to present a visual picture of the significant advances in health care. This exhibit, "From Saddlebags To Science: A Century of Health Care in Memphis 1830-1930," is in the Pink Palace Museum. After completion of the museum a research manuscript, "From Saddlebags To Science," was completed in 1984 to supply documentation for the health science exhibit.

The newest and most advanced health education center, KAMA Health Discovery, opened in Knoxville in 1990. The medical community raised \$850,000 for the exhibits located in the Candy Factory on the World's Fair site. Five classrooms provide instruction in the areas of general health, drug awareness, nutrition and dental health, family life, and lifetime fitness. All programs are presented by teacher specialists and are geared according to age group, kindergarten through high school. This project received the American Medical Association Health Awareness Promotion (HAP) Award, given to the most outstanding project in the nation sponsored by an auxiliary in coalition with their medical society. It was also featured on the cover of *Facets*, January 1992, the AMA Auxiliary magazine.

The medical community is working hard to reach out to children and teach them good health choices and preventive medicine. Diligence, expertise, and millions of volunteer hours have created a lasting resource for our state.

Dana Banks (Mrs. Sam L.)  
Auxiliary President

**TENNESSEE MEDICAL ASSOCIATION**

**157TH ANNUAL MEETING**

**April 8-11, 1992**

**Opryland Hotel, Nashville**

The continuing medical education accreditation program of the TMA has full approval by the Accreditation Council for Continuing Medical Education. An accredited institution or organization may designate for Category 1 credit toward the AMA Physician's Recognition Award those CME activities that meet appropriate guidelines. If you wish information as to how your hospital may receive accreditation, write: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

June 3-6	Family Medicine Review
June 5-6	Breast Imaging VI
July 14-17	Contemporary Clinical Neurology
Aug. 7-8	Functional Endoscopic Sinus Surgery Workshop 1992
Aug. 11-16	Contemporary Medical Imaging IX—Hilton Head, S.C.
Oct. 1-3	Lasers in Otolaryngology: Head and Neck Surgery
Oct. 2-3	Laryngeal Video Endostroboscopy Workshop
Oct. 16-17	Gynecologic Surgery Workshop in Pelviscopy, LLETZ, and Laser
Dec. 3-5	Lasers in Otolaryngology: Head and Neck Surgery

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

## IN TENNESSEE

### VANDERBILT UNIVERSITY MEDICAL CENTER

#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA Category 1 or AAFP prescribed credit is possible. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

April 3-4	Functional Endoscopic Sinus Surgery Workshop 1992
April 3-4	Annual Barney Brooks Lecture and H. William Scott Jr., Society
April 10-11	Identifying Substance Abuse Problems in Clinical Medicine
April 10-11	Gynecologic Surgery Workshop in Pelviscopy, LLETZ, and Laser
April 11	Retinal and Vitreal Disorders: New Information for the Nonspecialty Surgeon
April 23-25	Lasers in Otolaryngology: Head and Neck Surgery
April 24-26	Application of Molecular Biology to the Practice of Clinical Pathology
May 1-2	Doppler Ultrasound in Obstetrics and Gynecology
May 21-23	16th Annual Sonography Symposium with 1-Day Seminar on Early Detection of Ovarian and Endometrial Cancer With Transvaginal Sonography

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

July 26-31	Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.
Sept. 24-25	24th Memphis Conference on the Mother, Fetus, and Newborn

##### Knoxville

April 2-3	Perinatal Association Meeting
April 9-11	15th Annual Family Practice Update & Review—Gatlinburg
May 26-28	Positron Emission Tomography—Orlando
June 8-9	Pediatric Advanced Life Support Provider Course—Gatlinburg
June 11-13	37th Annual Great Smoky Mountain Pediatric Seminar—Gatlinburg
June 17-19	6th Annual Infectious Disease Update—Gatlinburg
June 24-26	98th Annual Upper Cumberland Medical Society Meeting—Fall Creek Falls, Pikeville

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the



physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

**Fee:** \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. **Credit:** AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. **Application:** For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

## IN SURROUNDING STATES

### WASHINGTON UNIVERSITY—MISSOURI

April 2-3	Annual Obstetrics & Gynecology Symposium
April 24-25	5th Hearing Aid Conference
May 15-16	Advanced Laparoscopy for the General Surgeon
June 4-7	Advances in Aesthetic & Reconstructive Breast Surgery
June 11-13	Cornea and Contact Lens Conference
June 26-28	Frontiers in Endourology: Laparoscopic Nephrectomy and Beyond (Urologists only)
Aug. 6-8	Clinical Allergy for the Practicing Physician
Nov. 5-8	ISACB 3rd Biennial Meeting: Toward Application of Advances in Basic Cardiovascular Biology
Nov. 21	Hyperlipidemia Seminar

For information contact Cathy Caruso, Office of CME, Washington University School of Medicine, Box 8063, St. Louis, MO 63110. Tel. (800) 325-9862.

### VIRGINIA SOCIETY OF OTOLARYNGOLOGY— HEAD AND NECK SURGERY

May 1-2	Annual Meeting, Virginia Society of Otolaryngology—Head and Neck Surgery—Boar's Head Inn, Charlottesville, Va.
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For information contact Donna Scott, Executive Secretary, Virginia Society of Otolaryngology-HNS, 4205 Dover Road, Richmond, VA 23221, Tel. (804) 353-2721.

## R<sub>x</sub>: Retirement



### PRACTICE OPPORTUNITY

We represent several retiring physicians seeking successors to their solo practices. We serve various primary care specialties in Tennessee. All inquiries strictly confidential.

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Nashville, Tennessee 37215  
(615) 665-1931

## Health Access America

The AMA proposal to improve access to affordable, quality health care

# "I can't afford to go to the doctor."

We hear that a lot from our patients these days. For the 33 million people who have no health insurance, it's a particularly acute problem.

That's why the AMA has launched a proposal to improve access to affordable, quality health care. It's called *Health Access America*. The message is being sent to Congress, the media, labor and management organizations, concerned groups like AARP, and your fellow physicians.

Simply put, *Health Access America* proposes health insurance coverage for all

Americans, regardless of income or health status. It calls for expanded publicly-funded health care for the needy; a stronger Medicare system; employer-provided coverage for all workers and their families with tax incentives for small businesses.

America's physicians are leading the way to reforming the health care system by speaking out on these critical issues. To get a copy of the *Health Access America* proposal, please call our Member Service Center at 1-800-AMA-3211.

The American Medical Association   
on behalf of member physicians and their patients.

## SOUTHERN INDEPENDENCE

Large practice, small town. Established Family Medicine group in pre-revolutionary Pee Dee area community seeking physicians for a life-time commitment. New building, equipment, facilities, unequaled elsewhere. A truly special career opportunity in Family Medicine for a special physician. It don't get no better - friendly town with excellent quality of life. BC/BE only, please. \$100,000+. Want more info? Contact:

*Cheraw Family Medicine*  
Attention: C. Radkin  
PO Box 867

*Cheraw, South Carolina 29520*  
(803) 537-2171. Call collect.

## **FAMILY PRACTITIONERS**

Rural community health centers located in beautiful mountains of northeast Tennessee are accepting CVs from Family Practitioners for a staff physician position at the Bluff City Medical Clinic in Sullivan County. Guaranteed salary with excellent benefits including paid malpractice insurance, continuing education assistance, a retirement program, and moving expense allowance. Approved loan repayment site.

Contact Rosemary King, Rural Health Services Consortium, Route 8, Box 35, Rogersville, TN 37857. Phone (615) 272-9163. (EOE)

## **EMERGENCY PHYSICIANS**

### **Tennessee and Kentucky**

MIDDLE TENNESSEE and CENTRAL KENTUCKY: Interested in slowing down your practice without stopping your income? Several career opportunities are available now. Low volume emergency departments. Some hospitals are within 70 miles of Nashville. Excellent remuneration potential. Professional liability insurance can be procured on your behalf.

Contact Wayne Allen at (800) 777-1301  
Coastal Emergency Services of Memphis, Inc.

## **EMERGENCY PHYSICIANS**

KENTUCKY, LOUISVILLE: Unique opportunities available in the "Derby City." Louisville has recently been ranked as one of the ten best cities to live in the United States. Board Certified Emergency Medicine or Primary Care physicians are needed to provide services at this moderate volume facility. Outstanding remuneration potential. Professional liability insurance can be procured on your behalf.

For immediate consideration, call or send CV to Wayne Allen, Coastal Emergency Services of Memphis, 5885 Ridgeway Center Pkwy., Suite 113, Dept. SM, Memphis, TN 38120. Phone (800) 777-1301.

## **Established Office Available In Knoxville, Tennessee**

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## **INTERNIST**

### **West Tennessee**

Eight-member Internal Medicine group in Dyersburg seeks ninth internist to join practice. Progressive growing community with excellent schools and churches. Near Memphis and Jackson. Salary guarantee program first year.

For information call Roger Walker at (901) 286-0925.

## **EMERGENCY PHYSICIANS**

MIDDLE TENNESSEE—immediate full-time and part-time positions available in small but growing community of Lewisburg, Tennessee, approximately 45 minutes to 1 hour south of Nashville. State-of-the-art emergency department with excellent emergency-trained nurses (all critical care and ACLS certified) and good medical staff backup. We prefer primary care physicians with emergency department experience and/or Board eligible or certified status—must have ACLS certification. Low volume with excellent compensation and medical malpractice paid. Flexible hours, no overhead, excellent opportunity for quality physicians. Both short-term and long-term positions available NOW.

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(615) 255-1961 (Nashville line)

Send CV and copies of Tennessee medical license, DEA certificate, and current ACLS card.



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owned/operated Psychiatric Hospital among  
Medical Facilities, Excellent Practice Opportunities  
and Benefits, Quality Setting and Accessibility.  
Contact Jon Orr, Mountain View Hospital,  
Gadsden, Alabama 1-800-245-3645



# *Fear of Anticipated Disaster In Psychiatric Patients*

VALERIE KAPLAN ARNOLD, M.D.; TED ROSENTHAL, Ph.D.;  
LESLIE ALDRIDGE, B.A.; and WILLIAM R. VEESER, Ph.D.

## Introduction

In early 1990, the man who claimed to have predicted the Mount St. Helen's eruption announced that a major earthquake would occur on the New Madrid fault in early December 1990. Stories about his prediction were carried on the national television networks as well as on national public radio. Because Memphis abuts/rests on the fault line, it received even wider attention here. More than 30 articles appeared in local newspapers, with multiple segments shown on the local TV news. Many of the local organizations, including Memphis and Shelby County Schools, and the University of Tennessee, Memphis, gave information preparing or warning their employees and students about earthquake dangers.<sup>1,2</sup> It thus appeared of interest to study whether anticipatory fear would be greater within psychiatric patients with various disorders as compared to non-patient controls.

## Methods

We questioned psychiatric patients on a five-point self report scale about fear (very high to very low) of the predicted Memphis/Mid-South earthquake.

Patients came from several sites: The Regional Medical Center Psychiatric Emergency Room; the VA Medical Center in Memphis (the Alcohol Rehabilitation Ward, the Drug Rehabilitation Ward, the Out-patient Mental Hygiene Clinic, and two inpatient

TABLE 1

EXPRESSED ANTICIPATORY FEAR ON A FIVE-POINT SCALE

	No.	Mean	S.D.
<b>Subjects Combined*</b>			
Total female	199	2.065	1.177
Total male	391	1.708	1.151
Female patients	117	2.085	1.079
Male patients	337	1.718	1.168
Female controls	82	2.037	1.309
Male controls	54	1.648	1.049
<b>Patients by Diagnostic Group</b>			
Organic disorders	34	1.794	1.149
ETOH dependence	11	1.364	.674
Schizophrenia	82	1.929	1.412
Dysthymia	18	1.722	1.018
Major depression	69	1.768	.972
Bipolar illness	43	1.698	1.103
PTSD	39	1.504	.995
Anxiety NOS	46	2.000	1.445
Panic disorder	11	2.364	1.120

\*The genders differed significantly on an overall ANOVA ( $F=10.03$ ,  $df=1,586$ ,  $P<.002$ ). On unpaired  $t$ -tests (one-tailed since following up the already significant gender differences), female patients showed more fear than male patients ( $t=2.99$ ,  $P=.003$ ), and female controls showed more fear than male controls ( $t=1.83$ ,  $P=.035$ ).

From the Department of Psychiatry, University of Tennessee College of Medicine, Memphis.

Reprint requests to Department of Psychiatry, University of Tennessee College of Medicine, 711 Jefferson Ave., Suite 137, Memphis, TN 38105 (Dr. Arnold).

## FEAR IN PSYCHIATRIC PATIENTS/Arnold

wards); and the University of Tennessee, Memphis Department of Psychiatry Outpatient Clinics (the Mood and the Psychotherapy Clinics, where both residents' and faculty's cases were assessed). The data was collected in November 1990, some one to five weeks before the predicted December 3 earthquake date. The control responses were obtained at several supermarkets in various sections of Memphis during the same period. The data were analyzed by a two-factor ANOVA and unpaired *t*-tests.

### Results

We did many comparisons among the psychiatric disorder groups, but in the few cases of differences it always emerged that the more fearful group was predominantly female and the less fearful group mainly male. Thus, apparent contrasts between types of disorder consistently reflected the strong underlying difference between the genders (Table 1).

### Discussion

Whether psychiatric patients or controls, women expressed more fear of the earthquake than did their male counterparts. Why should women worry more than the men about the earthquake? One possibility is that, as traditional guardians of the home and hearth,

women may worry about any anticipated disaster that may harm their families. Another possible explanation is based upon considerable research<sup>3,4</sup> showing that, other things equal, women in our society are much freer about expressing their subjective concerns. For example, women more freely admit to difficulties of emotion, distress, fear, and physical discomforts than will men with similar diagnoses. This point has been recently illustrated in a study of gastrointestinal patients with different illnesses. Across gastrointestinal illnesses, female patients expressed more complaints than male patients did.<sup>5</sup> Considerable other data also show women more prone to endorse or share negative feelings (fear, worry, discomfort) than men.

In conclusion, there was a significant difference in expressed anticipatory fear between the sexes, regardless of whether they were in the experimental or control group.

### REFERENCES

1. Business Emergency Preparedness Council. Rock and Roll—Duck, Cover and Hold. Memphis, 1990.
2. Central United States Earthquake Consortium. Be Prepared—Learn Earthquake Preparedness. Memphis, University of Tennessee, 1990.
3. Rosenthal TL, Montgomery LM, Shadish WR, et al: Two new brief practical stressor tasks for research purposes. *Behav Ther* 20:545-562, 1989.
4. Rosenthal TL, Rosenthal RH, Chang AF: Vicarious, direct, and imaginal aversion in habit control: outcomes, heart rates, and subjective perceptions. *Cognitive Ther* 1:143-159, 1977.
5. Rosenthal TL, Wruble LD, Rosenthal RH, et al: Complaint patterns of patients with irritable bowel syndromes, Crohn's disease, and acute gastroenterological illness. *Behav Res Ther* 25:99-112, 1987.

## HELP FOR IMPAIRED PHYSICIANS

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

### HELP US TO HELP

Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.



# *Diagnostic Dilemmas in the Nursing Home: Tracking Hidden Medical/Psychiatric Illness*

JAMES A. GREENE, M.D. and DEBBIE SMITH

## **Illustrative Case**

Mary H. was behaving strangely. Normally tranquil, the 77-year-old nursing home and dementia patient had been crying and wringing her hands for two days. She was refusing to eat, and she was having difficulty sleeping. When routine medical tests (including a complete blood count and a urinalysis) showed her vital signs to be essentially normal, the staff physician prescribed haloperidol (Haldol), a sedative frequently given to nursing home residents who become overly agitated. Mary seemed calmer, but within a few hours she showed signs of joint stiffness. The physician then ordered benztropine (Cogentin), a drug used to treat the symptoms of Parkinson's disease. Mary's stiffness improved, but her agitation worsened.

At that point, she was taken to a hospital. Her case posed several important questions for the emergency room physician: Was her illness a psychological problem presenting itself as physical ailments? Was it a medical disorder manifesting itself as a behavioral problem? Was it both physical and emotional? Was it a sudden side effect of the half-dozen drugs Mary took routinely for high blood pressure, glaucoma, and other chronic illnesses? What role did the Haldol play in her symptoms?

To find the answers, the physician ordered a series of tests, including a chest x-ray. The x-ray revealed pneumonia in the lower quadrant of Mary's right lung. She was treated with antibiotics and other supportive measures. Within a few days her agitated behavior disappeared, and she returned to baseline condition.

Mary's case illustrates two important points: one, how difficult it is to make a correct diagnosis in an elderly patient and, two, how important a correct diagnosis is.<sup>1</sup>

## **Diagnostic Dilemma**

Diagnosing the elderly patient is one of the most challenging tasks a physician faces. Several factors contribute to the difficulty.

Older patients are usually taking multiple medications for multiple illnesses.<sup>2</sup> Eighty-five percent have at least one chronic illness for which they are taking medication; 50% have two or more. In fact, four out of five take 20 or more prescription drugs a year. These drugs, particularly when taken in combination, can cause confusion, agitation, anxiety, delirium, hallucinations, psychosis, and a host of other psychiatric symptoms, along with physical symptoms such as weakness and tremors.<sup>2-5</sup>

Dementia patients may have an undetected physical illness that presents itself as a psychological or behavioral problem.<sup>1</sup> For example, confusion and agitation may be the only symptoms of a urinary tract infection, congestive heart failure, or—as in Mary's case—pneumonia. Virtually all diseases can have psychiatric manifestations. Hypothyroidism can cause irritability. Infection can produce confusion and agitation. Strokes can result in personality changes. Lesions in the brain can cause hallucinations. In the patient with dementia, who is often unable to express pain verbally, these problems can only be discovered by an astute physician using extensive medical tests.

Elderly patients may suffer from depression masked as medical illness or dementia. Studies show that as many as 30% of dementia patients have depressive disorders, which can worsen their confusion or mimic physical illness.<sup>1</sup> Yet, alarmingly, many receive no psychiatric intervention or antidepressant medications. Worse, recent studies indicate that with the right treatment, as many as 30% of dementias are partially reversible, and 20% of "dementia" patients are actually suffering from depression—a treatable illness.<sup>1</sup>

Reprint requests to Center for Health & Creative Aging, 9330 Park West Blvd., Suite 502, Knoxville, TN 37923 (Dr. Greene).

## DIAGNOSTIC DILEMMAS IN NURSING HOMES/Greene

Thus, the physician of the elderly patient must distinguish between physical illness, mental illness, and drug-induced illness. Doing so can be one of the greatest challenges in medical practice.

### The Search for Answers

The first step in diagnosis is an extensive medical and psychiatric assessment. The importance of such an assessment cannot be overemphasized. A comprehensive workup, including a complete blood count, a thyroid profile, and an EEG, among other tests, will effectively rule out conditions that can be reversed or stabilized.<sup>1</sup> A CT head scan, for example, revealed that a 72-year-old patient suffering from disorientation and confusion had a large cerebral hemorrhage.

Psychiatric testing is as important as medical testing. One study found that 56% of elderly patients admitted to a geriatric medical evaluation unit had psychiatric problems. Unfortunately, physicians may devote little time and effort on meaningful mental status examinations. Instead, they concentrate on medical diagnosis and record global impressions. As a result, psychopathology is often overlooked or misdiagnosed in elderly medical patients.

### The Last Step

Once the diagnosis is made, the physician must implement the appropriate treatment. Typically, that includes medication. But drug therapy is far more complicated in those over 65.

In addition to the risk of drug interactions from multiple prescriptions, older patients have an increased risk of drug overdose. Because of physiological changes, an older person's ability to distribute drugs is impaired, and the liver and kidneys don't work as efficiently.<sup>6</sup> As a result, drugs can accumulate and cause toxic reactions. A single dose of diazepam (Valium), for example, can stay in the 80-year-old patient's system for seven days. Because of

this tendency to retain drugs, elderly patients must be monitored far more carefully than those under 65.

### A Place for Psychotropic Drugs

In some patients, particularly those with advanced dementia, agitated behavior is not evidence of a treatable physical or mental disorder but a symptom of a damaged brain. These patients may be resistant, hostile, or paranoid, or even pose a threat to other patients, and they can be a serious management problem. Medication can be very effective, but it must be the right drug in the right dosage, and it must be administered by health care professionals who understand the complexities of drug therapy in the elderly.<sup>5</sup> Used correctly, psychotropic drugs make the agitated patient easier to care for. But more important, they improve the patient's quality of life by allowing him a greater level of physical and emotional comfort.<sup>4,5</sup> Therefore, those who regulate the medical care of elderly patients should take into account not only the potential *misuse* but also the *usefulness* of psychotropic drugs for the dementia patient.

Given the complex interaction of medical and psychiatric disease, the increased likelihood of drug misuse and overuse, and the prevalence of overlooked or misidentified disorders in elderly patients, comprehensive assessment by trained professionals *must* be a prerequisite to psychotropic drug therapy.<sup>1</sup> This ensures that patients receive only those drugs that are appropriate, and that no treatable conditions are overlooked, misdiagnosed, or simply attributed to aging.

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## TENNESSEE MEDICAL ASSOCIATION

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## Reiter's Syndrome

### Case Report

A 32-year-old man was admitted to Vanderbilt University Hospital with fever, arthralgias, and a rash.

The patient first became ill six years earlier, when he developed pain in his knees, shoulders, and lower back. The arthralgias had been preceded by a diarrheal illness. The pain responded to nonsteroidal anti-inflammatory drugs (NSAID) but always recurred. Tests for rheumatoid factor and antinuclear antibodies had been negative.

Six years earlier, the patient had also developed a pustular, papular rash that involved his torso and extremities but spared the palms and soles. The rash waxed and waned with the arthralgias. A skin biopsy, performed in February 1990, showed only nonspecific inflammation. Culture of the pustular drainage grew *Streptococcus* group A.

The patient had also noted recurrent episodes of prostatitis over the past six years; he associated these episodes with worsening arthritis.

Two weeks prior to admission, his knees, shoulders, and lower back became more painful and the rash more noticeable. Four days prior to admission he developed photophobia and blurred vision. An ophthalmologist told him he had uveitis, and treated him with steroid drops. The next day he developed fever, chills, and dysuria. He was admitted for further evaluation.

The patient was a carpenter. He denied a history of sexually transmitted disease, homosexual activity, or intravenous drug use. He took an unknown NSAID and used steroid eye drops.

On physical examination, the patient had a temperature of 101°F, pulse 86/min, respiratory rate 22/min, and blood pressure 117/78 mm Hg. Examination of the skin revealed papular lesions involving the arms, legs, and torso that ranged in appearance from newer pustules to older, excoriated lesions. The right conjunctiva was slightly erythematous. There was generalized musculoskeletal tenderness. This was greatest over the patellar tendon of the knee, Achilles tendons, and sacroiliac joints. The prostate was mildly tender.

Admission laboratory examination revealed a WBC count of 5,300/cu mm with 85% neutrophils. The urinalysis was normal. An erythrocyte sedimentation rate was 3 mm/hr. Cultures of the blood, urine, and CSF were negative. Skin biopsy revealed folliculitis. An ophthalmologic examination revealed resolving uveitis. Antinuclear antibodies were weakly positive with a speckled pattern at a titer of 1:80. Antibodies to DNA were negative. Rheumatoid factor was 1:40. Pelvic films revealed no evidence of sacroiliitis. The patient tested negative for HLA-B27. A urethral culture for chlamydia was negative. Antibodies to the human immunodeficiency virus (HIV) were not present.

His symptoms resolved with indomethacin and prednisone. He continued receiving fludromethalone 0.1% eye drops.

### Discussion

In 1916, Hans Reiter described postdysenteric conjunctivitis, urethritis, arthritis, and dermatitis in a German military officer.<sup>1</sup> It is now recognized that only one-third of patients with Reiter's syndrome exhibit the

complete triad of conjunctivitis, urethritis, and arthritis. The American Rheumatism Association has defined Reiter's syndrome as "an episode of peripheral arthritis of more than one month's duration occurring in association with urethritis and/or cervicitis."<sup>2</sup>

Reiter's syndrome appears to be a reactive process to some triggering genital or enteric infection in genetically predisposed individuals. Reiter's syndrome belongs to a spectrum of seronegative spondyloarthropathies that include ankylosing spondylitis and psoriatic arthritis.

*Chlamydia trachomatis*, *Yersinia enterocolitica*, *Salmonella*, *Shigella*, and *Campylobacter* species are the pathogens most commonly associated with Reiter's syndrome.<sup>3</sup> Partly because the symptoms of arthritis usually begin several weeks after the inciting infection, evidence for a link between these pathogens and Reiter's syndrome is often indirect. As an example, 83% to 88% of Reiter's patients without a history of dysentery report a recent new sexual contact,<sup>4,5</sup> and there is an increased frequency of genitourinary and rheumatologic complaints among partners of patients with Reiter's syndrome.<sup>6</sup>

Sixty percent to 90% of patients with Reiter's syndrome are HLA-B27 positive,<sup>7</sup> compared to 4% to 8% of asymptomatic whites and 0% to 4% of blacks; there is a 9:1 male predominance. The mechanism through which HLA-B27 confers susceptibility to Reiter's syndrome is not known but may involve cross-reactivity between microbial antigens and the HLA-B27 antigen.<sup>8</sup>

Reiter's syndrome typically occurs in men aged 20 to 40 years.<sup>9</sup> Genitourinary symptoms follow dysentery or new sexual contact by 8 to 15 days and precede arthritis by another 7 to 21 days. Genitourinary manifestations include not only urethritis, but also prostatitis, cystitis, epididymitis, orchitis, and urinary tract infection.<sup>7</sup> In women, symptoms include vaginitis, cervicitis, salpingitis, vaginal discharge, and urinary tract infections.<sup>7</sup>

The arthritis of Reiter's syndrome is oligoarticular (two to five joints) and typically involves the joints of the lower extremity—knees, ankles, and MTP joints.<sup>7,9</sup> Chronic involvement of the MTP joints may lead to sausage toes. With chronic disease, x-rays may show bony destruction, similar to that seen in psoriatic arthritis. Enthesopathy—or inflammation of the tendons at their insertions—occurs in 22% of patients; typically these patients have Achilles tendonitis, plantar fasciitis, or heel pain.<sup>9</sup>

Low back pain is common during acute reactive arthritis. Radiographic evidence of sacroiliitis may be seen  
(Continued on page 165)

Presented by Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.



# Know What You're Doing/Ask for Help

J. KELLEY AVERY, M.D.

### Case Report

The 26-year-old model who lived in a suburban neighborhood developed chest pain about four days before she visited her primary care internist. At the time of this first visit, the patient had marked "sticking" pain in the right chest which was greatly aggravated by deep breathing. The day before she came to the doctor, her cough, which had been a minor symptom, yielded a small amount of bright blood.

The history further revealed that she had developed a low-grade fever the day after the onset of the chest pain. The past history was negative except for the usual childhood diseases. The menarche occurred at age 12, and she menstruated regularly since that time. She had become sexually active in her early 20s and had been taking birth control pills without interruption for the past four years. Her father was under treatment for hypertension. Her mother was healthy and there were no significant familial illnesses.

Her temperature was 100°F, pulse 100/min, respirations 28/min and shallow, and blood pressure 110/70 mm Hg. Breath sounds were diminished over the right lower chest posteriorly. The remainder of the examination was nonrevealing. Office laboratory tests showed a WBC count of 11,250/cu mm. The chest x-ray showed an infiltrative process in the right lower posterior lung field consistent with a pneumonia or pulmonary embolus (PE). On the strong impression of a PE, the internist admitted this patient to the suburban community hospital and ordered a *stat* ventilation lung scan. The test showed changes compatible with the impression of PE. Complete blood counts again showed a moderate leukocytosis with a left shift. The platelets on the peripheral smear were reported as normal. The PT and PTT were within normal limits.

Anticoagulant therapy with heparin was begun immediately and aggressively. The patient complained of increasingly severe pain and was very displeased with the hospital staff because the medication ordered for pain was not relieving her. Her doctor increased the dose of pain medication, but to no avail. His patient continued to complain bitterly of pain and on one occasion threatened to have some street drugs brought in to her. Daily PT and PTT tests were done but they never showed satisfactory levels of anticoagulation.

On the fifth day of hospitalization the patient and her family became very angry and confronted her doctor with her dissatisfaction with the hospital and with her continued pain that had so resisted the drug prescribed. The patient's anger was not helped by the hospital's asking for some payment toward her bill, since she had no medical insurance. Her physician was the hospital's messenger of this unwelcomed request.

On the sixth hospital day the patient developed some swelling and pain in her left arm. The arm was warm and somewhat discolored, pale, and slightly cyanotic. This was the source of

continued complaints of severe pain unresponsive to the pain medication being given. Her PT and PTT remained below the target level despite increasing doses of heparin. The next morning the right arm was beginning to be painful and swollen. At this time, the patient demanded transfer to the medical center.

On admission to the teaching hospital, a thorough examination was done. The senior resident who accepted her as a service patient noted the swelling of both arms and correctly suspected some kind of thrombotic process. Heparin was reintroduced in the treatment of this very obscure condition. Repeat studies confirmed the diagnosis of PE involving the right lung. Again a mild leukocytosis was reported. The urine was negative and the blood studies continued to show a moderate leukocytosis and the platelet count was reported at 59,000/cu mm. With the development of peripheral neuropathies in the hands, fasciotomies and carpal tunnel releases were done in both arms. Pain continued to be the predominant symptom, and she required heavy doses of narcotics to give her any relief.

The vascular problems continued in the arms and indeed progressed to the point that amputations of both arms had to be done. The postoperative course was stormy but with the help of some skin grafting healing did occur. On the suspicion that the heparin might have contributed to this condition, the drug was discontinued about the time of the amputations.

After being discharged, the patient developed thrombosis in the left femoral artery and had to be returned to the urban institution. Surgery was done to remove the clot and there was no recurrence. During this period of hospitalization, she was seen by a hematologist who, on the basis of the clinical course and the low platelet count on her initial admission to this hospital, suspected the rare heparin-induced thrombocytopenia, or the "white clot syndrome."

A lawsuit was filed against the physician, charging negligence in failing to diagnose, failing to treat in an appropriate manner, and failure to consult an appropriate specialist, all of which led to the loss of one arm above the elbow and the other above the wrist. Damages sought were enormous because the result of the physician's negligence was not only the loss of her arms and all the grief and disability that went with that, but also the loss of a very promising modeling career. The plaintiff was able to get some very impressive experts to state that the internist should have suspected the true nature of the condition early on, stopped the heparin, and saved her the disfiguring operations. Defense was thought to be very dangerous, both because of the standard of care issues and potential sympathy by the jurors for this very unfortunate young woman. Although there were attempts to settle, the plaintiff would not agree. The case went to trial and resulted in a jury verdict against the physician. The award was in the six-figure range.

### Loss Prevention Comments

Heparin-induced thrombocytopenia has been recognized as a clinical entity for only the past 10 years. Al-

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The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.



though not clearly understood as yet, much has been learned about it in the past decade. It has become less rare as the use of heparin has increased. In some tertiary care hospitals, heparin is one of the most commonly prescribed drugs. Adverse drug events in hospitals are regularly monitored, and heparin is one of the most frequent offenders. Usually these "events" are episodes of bleeding from one site or another. In this fairly large group of patients, more cases of heparin-induced thrombocytopenia are occurring each year. The mortality/morbidity data from reactions of this type are truly staggering.

It is true that many patients receiving heparin develop a transient thrombocytopenia that clears during continued heparin administration. It is also true that about 1% of the patients receiving the drug develop significant thrombocytopenia, which can and does progress to the stage of intravascular clotting and is frequently fatal, or more frequently causes the loss of limb, as it did in this patient.

Prevention of patient injury in the setting of a thromboembolic event or other condition, or a surgical procedure demanding heparin requires first the awareness of the syndrome and the careful monitoring of the platelet count. Most investigators in this field recommend a platelet count every three days during treatment with heparin, and stopping the drug if the count continues to fall after the initial drop even in the absence of any evidence of intravascular clotting. In patients who will require anticoagulation, it is recommended that a warfarin preparation be given along with the heparin, the former to be continued as the heparin administration is gradually stopped. Of course, in this circumstance as in any other where there is significant potential for patient injury, the chart should contain evidence that the physician has informed his patient of the risk involved and the benefits hoped for.

This severe form of heparin-induced thrombocytopenia is a true antigen/antibody phenomenon and the patient should *never* again receive the drug.

## Vanderbilt Morning Report . . .

(Continued from page 163)

in 5% to 10% of patients.<sup>10</sup> Up to 26% of patients with severe Reiter's syndrome develop ankylosing spondylitis.<sup>11</sup>

The most common ocular manifestation of Reiter's syndrome is conjunctivitis.<sup>12</sup> Although there may be mucopurulent drainage, this usually resolves spontaneously in 7 to 10 days. Anterior uveitis, characterized by erythema, pain, and photophobia, occurs in 20% of patients with Reiter's syndrome. Sequelae include synechiae formation and secondary glaucoma.

Fifty percent of patients develop mucocutaneous lesions.<sup>7</sup> Keratoderma blennorrhagica, characterized by hyperkeratotic papules and plaques on the weight-bearing aspects of the palms and soles, occurs in 10% to 30%. Patients may develop painless papules or shallow ulcers in the mouth. Balanitis circinata is a pathognomonic psoriaform rash involving the genitals.

Pericarditis, myocarditis, conduction abnormalities, aortic valve disease, and neurologic disease are less common manifestations of Reiter's syndrome.<sup>7,9</sup>

In most cases, symptoms resolve over three to six months.<sup>10</sup> Fifty percent to 80% of patients have recurrent disease.<sup>7,9</sup> Ten percent to 25% of patients may have disabling symptoms. There appears to be no reliable clinical marker for those who will relapse.

Several authors advocate a 7-day to 14-day course of tetracycline or erythromycin in patients with urethritis or in whom chlamydia is suspected.<sup>3</sup> However, this has not been shown to affect either the duration of the acute attack or the persistence of peripheral joint symptoms. On the other hand, prolonged (two to four months) courses

of doxycycline or minocycline may improve the symptomatic outcome of the disease.<sup>13</sup> Acute anterior uveitis is treated with mydriatics, cycloplegics, and topical steroids. Acute arthritis may be treated with nonsteroids. Low-dose methotrexate also appears to be effective.

Finally, Reiter's syndrome has been associated with infection with the HIV, and may be a presenting manifestation of HIV infection.<sup>14</sup> Whether this is a direct effect of the HIV or a result of high-prevalence of sexually transmitted disease among patients at risk for AIDS is not certain.

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## Everyone Wins in a Cooperative Venture

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It's not unusual in rural America for a public health nursing supervisor to spend hours each week calling physicians in a multicounty area trying to get prenatal care for poor women. Increased Medicaid eligibility for these women has helped, but it's no guarantee of access to care. In one rural area of Middle Tennessee, however, a very special cooperative venture has evolved.

This part of Tennessee, comprising Wayne, Perry, and Lewis Counties, is an area of gently rolling farmland isolated by a major river on the west and a state boundary on the south. There are no major highways in or out of the area, and the farm roads curve and wind around the hills and valleys. Ice and snow create special hazards in the winter, since there is no snow or ice removal equipment.

The total population of the three-county area is 29,794 (1990 census) and covers 1,428 square miles, for a concentration of only 22 persons per square mile. Prenatal care historically has been very scarce and difficult of access. According to 1989 figures, only about 70% of women received adequate prenatal care by standards of the Kessner Index.

In 1989, eight rural and four metropolitan community health agencies (CHAs) were established by the Community Health Agency Act. The CHAs are community-based organizations charged with responsibility for improving the availability of health care services and access to those services. Through a program of incentives and working with public and private health care sectors, the CHAs have recruited physicians to underserved areas such as the one described here. Special emphasis in the southern part of Middle Tennessee has been given to recruitment of physicians who will deliver obstetrical services.

The South Central CHA served as the catalyst for bringing together private providers, the health department staff, and hospital administrators to address the serious need for prenatal care for women in the area. A physician who had been recruited to the largest of the

three counties was building her obstetrical practice. That county also had the only hospital providing deliveries at that time. The physician wanted to work with the health department to develop more comprehensive services for the woman she was seeing in her practice. Through a series of meetings, it became apparent that a joint effort would meet some common goals.

Several barriers to providing comprehensive prenatal care were identified:

- An absence of prenatal classes,
- Patients' difficulty in getting to the physician's office because of inadequate roads,
- Fragmentation of care,
- Difficulty experienced by the physician in billing Medicaid because patients did not bring with them their presumptive Medicaid numbers.

After identifying these barriers, steps were taken to resolve the problems. A health educator, hired through the CHA, worked closely with the private physician to provide prenatal education. The curriculum, which was developed jointly by both, includes maternal changes in pregnancy, nutrition, exercise, substance use during pregnancy, the hospital experience, labor and delivery, postpartum care, infant health care, infant development, and breastfeeding. The health educator observed patients in prenatal care and in labor and delivery to obtain specific knowledge about the routines and wishes of this particular physician. One result of the collaboration was the recruitment of an anesthesiologist from the hospital as an instructor for the class on labor and delivery. The community hospital has developed a birthing unit, and hospital staff provide tours of the maternity units for the expectant parents. The classes are taught in the evening for the convenience of the participants, who represent all of the social strata. Infant car-safety seats are provided as an incentive for attendance at all classes.

Arrangements were made for a health department nurse practitioner to get additional clinical training in prenatal care through a special preceptorship with the physician. This allowed the nurse practitioner to provide prenatal care in sites more geographically accessible to

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From the Tennessee Department of Health, Nashville.



patients—the health department clinics. In addition to delivering prenatal care in several health departments, the nurse practitioner has also used her training to educate general public health nurses to provide specific follow-up for patients upon the request of the physician.

The issue of fragmentation of care was addressed largely through the working relationship between the physician, the nurse practitioner, and the health educator, who in time became a team. As patient needs become apparent, the team is able to provide services appropriate to the specific needs of the patients without duplication and without gaps in care. For instance, one patient was seen for follow-up care in an adjoining county by a public health nurse, who recognized a dangerously high blood pressure and referred the patient to the physician. A healthy baby was delivered by induction. In another county, a nurse made a home visit to check on whether or not a patient was taking prescribed medication to prevent preterm labor. All eligible patients are referred to appropriate health department services, such as WIC, HUG (a care coordination program), Medicaid transportation, and family planning.

To reduce Medicaid billing problems, the health department staff who screen patients for presumptive Medicaid eligibility send (with the patient's permission) the presumptive Medicaid number directly to the physician.

As the team has worked together, the members have discovered other ways to help each other. For example, a concern arose about infants receiving one formula at the hospital and another from the WIC program. The issue was resolved by joint discussion between the physician and health department nutritionist.

The patient, the health department, and the private physician have all benefited from this collaborative relationship. For the first time, coordinated and comprehensive prenatal care has been made available to patients in this geographic area. The nursing supervisor mentioned in the first paragraph is no longer calling all over the region trying to get patients into prenatal care. Through improved communication, the "Ping-Pong" syndrome has been eliminated and patients now receive the care they need, when and where they need it.

Patients from these counties who had received prenatal care from the public health nurse and practitioner went to the regional hospital for delivery by physicians they had never seen before. They are now receiving both prenatal care and delivery from the same doctor. Greater safety is afforded the infants of the patients through use of the child restraint seats, provided as class attendance incentives.

The opportunity for the nurse practitioner to continue her professional growth and to increase her skills in prenatal care has made her more valuable to the

health department and increased her sense of competence and satisfaction. She has provided direct prenatal services in counties beyond the three target counties.

The health education program has increased public awareness of the services available through the health department. More thorough and consistent prenatal education has been made available to health department patients and empowered them to assume responsibility for their own care. One young mother who had participated actively in classes was rushed suddenly and all alone to a regional teaching hospital for a preterm delivery. She not only coped well with labor and delivery, she also pumped breastmilk for her 2-lb infant. She later told the health educator, "I remembered what you told me. I'm proud of myself." The structure of classes allows for more efficient use of the health educator's time.

Awareness and use of public health resources have also been enhanced through this collaborative relationship. Services that the physician desires for her patients, but does not have time to provide, are now available. Social problems and educational needs that can negatively affect pregnancy outcomes are now being addressed more efficiently, thus reserving physician time for medical issues.



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MARC E. OVERLOCK  
TMA General Counsel

Are physicians exempt from subpoenas in Tennessee civil trials? Is there a physician-patient privilege during a trial that prevents a physician from disclosing a patient's confidential statements? If an attorney schedules a physician for a deposition, who is responsible for paying the physician? What happens if that person does not pay the physician's fee? In a workers' compensation case, is an attorney really entitled to a 20% cut from the physician's treatment charges? What should a physician do if an attorney refuses to pay the physician for the care of a workers' compensation patient if the physician does not agree to having that 20% deducted? Is there any recourse? All of these questions can be either answered or addressed by the newly revised Interprofessional Code of Cooperation (Code) between the Tennessee Bar Association (TBA) and the Tennessee Medical Association (TMA). A copy of the Code is printed in the back of this issue of the *Journal*. (Answers to these questions also appear numerically in the conclusion below.)

The Code is now close to 35 years old. It symbolizes the firmament of interprofessional common ground. Thomas K. Ballard, M.D., chairman of TMA's Interprofessional Liaison Committee, was one of the chief architects behind both the second and this latest revision of the Code. Dr. Ballard recently expressed pride over this updated version, stating, "It represents two years of hard work. Every physician should examine the Code and become conversant" with its provisions. He explains that this "long overdue revision was the outgrowth of an amiable series of meetings" between each Association's Interprofessional Committee. "Early on, we jointly laid the groundwork for nonadversarial meetings which allowed us to avoid major [drafting] snags and to overcome minor [textual] disagreements." "All in all," he concluded, "it was a very smooth operation."

When one reads the short, two-page Code from 1957, it is obvious how the joint committees found their common ground. They declared their professions' interrelationship by defining respective roles:

The medical profession is primarily concerned with the diagnosis, treatment and cure of the patient. The legal profession is primarily concerned with preservation and protection of the rights of the client.

It is for the physician to determine the nature, extent and duration of the injury. It is for the lawyer to determine how and under what circumstances such facts are to be appropriately presented.

The physician should not be an advocate. He should not undertake to advise the patient as to his legal rights, or undertake to evaluate his claim or cause of action; and by the same token, the lawyer should not undertake to encroach upon the prerogative of the physician in the care and treatment of the patient.

There should at all times be complete cooperation between the physician and the lawyer, each assuming his proper responsibility, and recognizing that each profession has the duty to develop an enlightened and tolerant understanding of the other.<sup>1</sup>

The drafters of the 1969 Code revision dropped this language, concentrating their efforts instead on the mechanics of the physician as a trial or deposition witness, and with the provision of medical records. They also expanded the Code's discussion about physicians' fees from the 1957 edition's two sentences to a complete article with three subsections. Following that 12-year span, the joint committees reacted to an apparent evolution that saw the practice of both medicine and law turn from professions into businesses. Under the 1991 Code's Article VI and its *six* sections, the physician fee provisions have become even more important. Section 1 states that "while instances of non-payment [of physicians' fees] are rare, they are common enough in some localities to arouse strong feelings." The Code suggests, in this regard, that a "request by an attorney for a physician's services should state the person responsible for the charges." However, the joint committees recognized that the mere reference to professional fee etiquette would not suffice. Thus, they added a Section 6 entitled "Responsibility for Payment," which includes a contractual form detailing payment responsibility. The provisions of Section 6 bear repeating here:



It shall be the obligation of the attorney to take all reasonable steps and to make every reasonable effort to insure that adequate arrangements are made for the payment, by the client, of all compensation of attending physicians for services rendered in connection with litigation. This shall include reports, conferences, consultations, depositions and trial appearances.

The payment of an examining physician's fee for the examination and report, and subsequent depositions or court appearances, is the obligation of the attorney requesting such an examination.

Even with such clear language, however, disputes will still arise. Thus, for 35 years both Associations have recognized the need for a joint grievance committee. The 1957 Code provided for a joint "attempt" at mediation and arbitration of physician-attorney disagreements. A dozen years later, both Associations added some procedural teeth by providing a reporting mechanism to each Association's governing board. The 1991 Code again amplifies the process, this time into a form of interprofessional peer review. Each Association contributes six members, two from each Tennessee Grand Division, to form a Medical-Legal Code Committee. At the initial arbitration level, the committee sits in sections of four-member hearing panels. Any party aggrieved by a panel's decision can appeal the judgment to the full 12-member committee. The full panel then convenes a second hearing to resolve the controversy. Unless that panel completes the process to the parties' satisfaction, the chairman must certify the facts to each Association's governing board for appropriate action. Presumably, TMA's Board of Trustees would forward the case to the Judicial Council. If the Council sanctioned a physician's membership and that decision became final, it would be reportable to the Tennessee Board of Medical Examiners.<sup>2</sup> Similarly, the TBA's membership sanction likely would be followed by a licensure action by the Tennessee Board of Professional Responsibility. As a result, members of each Association should take a grievance seriously and, as Dr. Ballard suggests, "become conversant with the Code's provisions."

## Conclusion

(1) The Code makes it clear that physicians are exempt from civil trial subpoenas in Tennessee *state* courts. Under Tennessee law a practicing physician need only appear at a deposition, not a civil trial.<sup>3</sup> Physicians must either inform the subpoena server that they are claiming the exemption at the time of service, or file a motion with the issuing court. The spirit of the Code suggests that such matters can be worked out informally with the attorney who issued the process. However, the physician should exercise extreme caution in this regard by confirming the waiver with the court clerk. In any event, the statutory subpoena exemption does not apply to criminal cases or to federal court cases.

(2) There is no physician-patient privilege under Tennessee law.<sup>4</sup> Thus, litigants are entitled to learn about a physician's treatment conclusions through the formal discovery process. It is important here to distinguish between patient confidentiality and a litigation privilege. Physicians still are ethically obligated to maintain patient confidentiality, unless they are testifying, or have secured a waiver directly from the patient. Additionally, Tennessee's Medical Practice Act gives the Board of Medical Examiners the power to revoke a physician's license in the event he "willfully [betrays] a professional secret."<sup>5</sup> If the physician is compelled to disclose a confidentiality during pretrial discovery (or during a trial), then there is neither an ethical breach nor a licensure violation.

(3) When a physician agrees to appear for a deposition he should make prior payment arrangements with the attorney. The Code puts the payment burden on the attorney, not his client. Contract law governs these arrangements. Unfortunately, there are no applicable statutes. Therefore, in order to secure complete protection, a physician should insist that the attorney execute the form in Appendix A of the Code, which delineates payment responsibility.

(4) If either the attorney or his client withholds payment despite a physician's written demand, the physician should immediately file a grievance under the Code.

(5) Workers' compensation cases present a more complex picture in this payment and fee context. Attorneys are not legally allowed any share of a treating physician's fee. Occasionally, an attorney will misinterpret the Workers' Compensation Act as requiring that he receive 20% of all fees to which the claimant is entitled. The law actually states as follows:

(a) The fees of attorneys and physicians and charges of hospitals for services to employees under the Workers' Compensation Law **shall be subject to the approval of the court** before which the matter is pending; provided, that no attorney's fees to be charged employees shall be in excess of twenty percent (20%) of the amount of the recovery or award to be paid by the party employing the attorney. (b) **The charging or receiving any fee by an attorney in violation of subsection (a) shall be deemed unlawful practice and render the attorney liable to disbarment;** and, further, he shall forfeit **double** the entire amount retained by him, to be recovered as in case of debt by the injured person or his creditor.<sup>6</sup> (Emphasis added.)

Attorneys who apparently violate this law first should be reported to the Medical-Legal Code Committee. The aggrieved physician should let the Code's peer review process work. Although such cases usually can be satisfactorily resolved through a respective member's education, in rare instances, on issues such as the proper fee percentage, the TBA's governing board may need to report a recalcitrant member to the Board of Professional Responsibility and to the Tennessee Department of Labor's Workers' Compensation Division. If a physician were to bypass the Code's review process and take his fee complaint directly to the attorney's licens-



ing board, that board might view the physician's grievance merely as an improper attempt to collect a debt. The Code's grievance avenue will insulate members of both professions from such claims by providing an independent review panel.

The physician fee question in workers' compensation cases presents two types of disputes: claims for providing sworn expert testimony and for treatment charges. Ordinarily, the fees due a treating physician *for the purposes of providing testimony* are taxed as part of the costs of the case.<sup>7</sup> By contrast, the employer is responsible for a physician's treatment charges. In this regard, the law clearly states as follows:

The employer or the employer's agent shall furnish free of charge to the employee such medical and surgical treatment, medicine and surgical supplies, crutches, artificial members, and other apparatus, including prescription eyeglasses and eye wear, such nursing services as ordered by the attending physician and hospitalization, including such dental work made reasonably necessary by accident as herein defined, as may be reasonably required. . .<sup>8</sup> Additionally, the " . . . employer shall pay for the services of the physician making the examination at the instance of the employer."<sup>9</sup> (Emphasis added.)

Finally, the employer will be responsible for paying a physician's fees only to the extent that "such charges . . . prevail for similar treatment in the community where the injured employee resides."<sup>10</sup> The Code has no application when there is a dispute between a physician and an employer over the fee amount. Instead, the court in which the employee filed the claim retains jurisdiction to determine the proper amount of compensation.<sup>11</sup> A court can deny payment of a physician's fees or a hospital's charges if either the physician or hospital fails to submit treatment reports as required under the Workers' Compensation Law.<sup>11</sup>

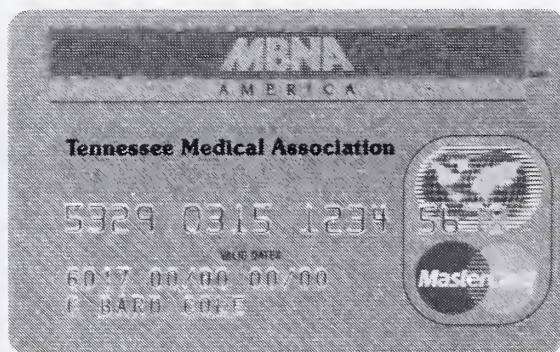
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4. *Quarles v Sutherland*, 389 SW2d 249 (Tenn 1965).
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11. TCA § 50-6-204(a)(5).

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# Starting a New Year With CARE

ROBERT BOWERS, M.D., *Chairman*  
TMA Communications and Public Service Committee

As we look toward our third year of the Community Awareness, Resource, and Education (CARE) program, we recognize how it has affected the TMA. Our goal has been to improve our relationships with the media, our patients, and our staffs, and through the CARE program, we believe the TMA has made great strides to that end.

Following a year of study, discussion, the setting of goals and objectives, and the selection of public relations counsel to help us, we began our formal efforts by asking more than 700 Tennesseans and 200 member physicians questions about health care issues. We did this to better understand our audiences and their feelings and opinions regarding health care, to help us frame our activities. We believe that research has paid off. Importantly, it helped us establish the remainder of our strategies: public service efforts, media relations, patient relations, and member communications.

Our *public service* communications have been realized predominantly through our radio advertising campaign. In two short years, we have made 20,369,200 impressions on Tennesseans through more than 7,000 public service announcements on 89 radio stations across the state. These announcements focused on TMA physicians and the care they give.

In addition, with more than 270 stories in newspapers and publications in Tennessee, we have reached thousands of our patients through the print media and our *media relations* efforts. In 1988, the year before beginning the CARE program, there were 33 stories on the TMA, compared to 65 in 1989, 163 in 1990, and more than 100 in 1991. Television and radio news stories have added to this number, too.

In an effort to improve our responsiveness to the media, and thereby improve our communications with our patients, 10 member physicians have been trained to work with the media and are now poised statewide in a TMA Spokespersons Network to proactively help the media on issues of importance to our Association.

The highly successful "Mission: Possible" package was our most visible effort in the *patient relations* area. More than 700 members requested our Patient Relations Guidelines, and we have had eight articles in recent issues of the *Journal* on subjects ranging from how to work with the media to tips on making your reception area more inviting to patients.

As far as improving *communication to our members* is concerned, we developed a video report for all 51 member societies to use in communicating CARE and TMA benefits and activities to members and in recruiting more members for the organization. We also have explained our activities to members with presentations at the annual meeting, development and mailing of our *TMA Today* newsletter, and articles like this in the *TMA Journal* and *The Chart*.

Many thanks to all of you for your involvement in the CARE program to improve communications with each other and with your patients. I encourage you to continue your efforts and look forward to seeing many more great things happen in 1992.

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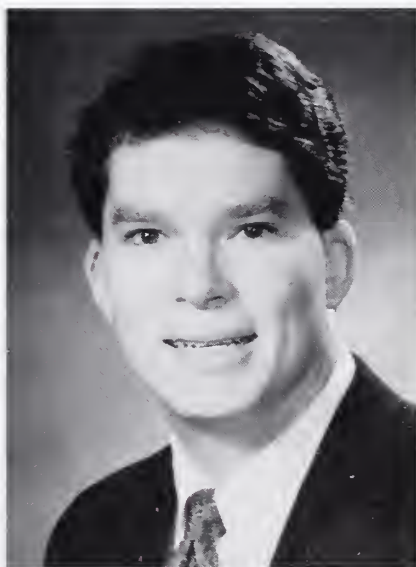


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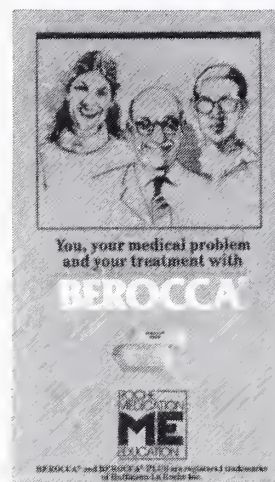
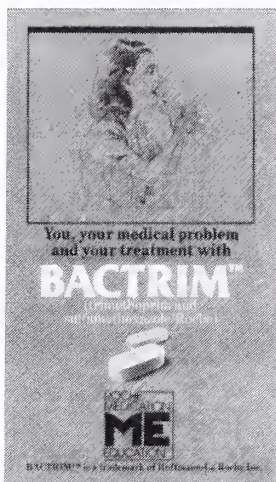


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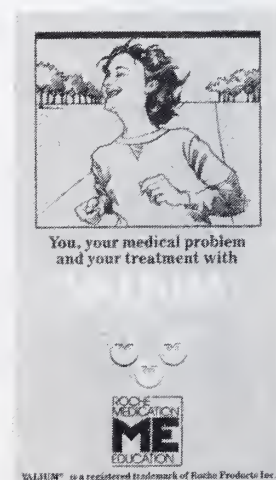
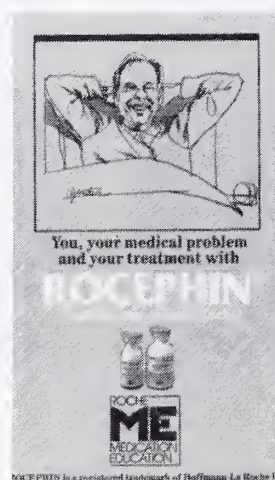
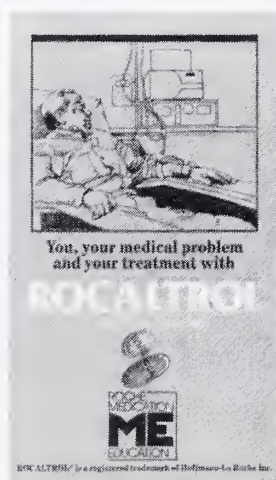
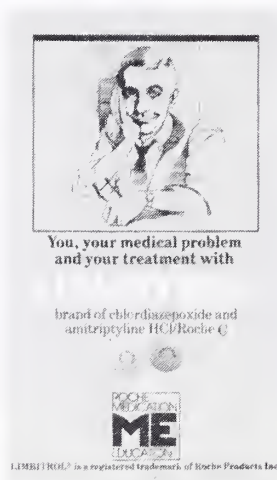
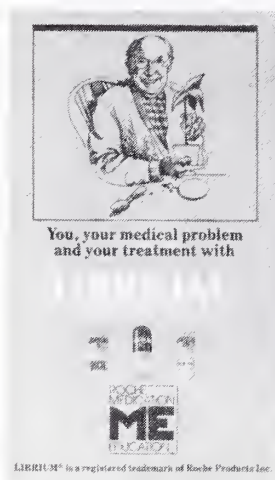
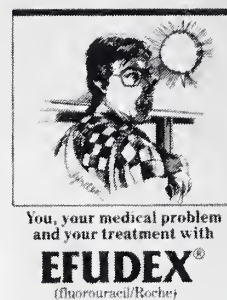
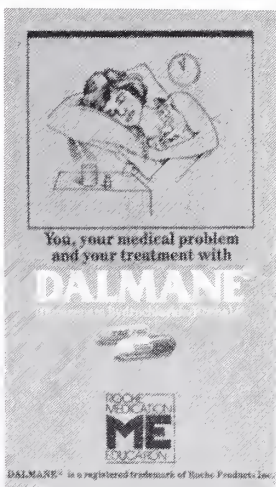


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HOWARD L. SALYER

## *A Year To Be Remembered*

Almost a year ago, I wrote my very first message to the members of the Tennessee Medical Association. Today, I am writing my last, and my heart is full of gratitude for the opportunities you, the members of the TMA, gave me when you elected me president of this organization. This past year has been one replete with many changes and challenges, but it has also been a year that I have enjoyed and will remember fondly.

There are so many, many people who deserve not only my thanks, but the thanks of the entire membership, for the vital role they have played in the further growth and success of the TMA. Without people like these, organized medicine could not continue to exist, and the impact upon the medical profession would be highly detrimental. We should all be grateful for their presence in this organization.

Thank you . . . to the physicians who have given so freely of their time and energy to serve the TMA in a number of different capacities—as delegates to the House, as alternate delegates, as TMA committee members, as members of the TMA's Board of Trustees, and as AMA delegates and alternate delegates.

Thank you . . . to Hadley Williams, Don Alexander, and the rest of the TMA staff who work so hard to give the TMA the tools it will need to face the challenges of the 21st century. Their vision, talents, and achievements have been an important part of the TMA's successes to date and will play an important role in future accomplishments.

Thank you . . . to all of those people who have supported organized medicine in general and the TMA in particular. Your input and ideas are vital to the further growth of organized medicine and ultimately the medical profession.

And a special thank you . . . to Jean Wishnick, managing editor of the *Journal*, who always took the time to remind me that my message was due and who does an exceptional job of producing this publication on time and in budget. In her initial letter to me, Jean wrote that "if we come across a problem . . . or something isn't clear . . . I'll be calling," and called she has. Thank you, Jean, for your persistence and understanding.

And to the membership of the TMA . . . thank you for a year that I will never forget. I have thoroughly enjoyed working with you as we strive to provide programs and services that are designed to safeguard the way we practice medicine and enhance the care that we can provide our patients, and I urge you to continue to support this outstanding organization in the future.

Your new president, Dr. Ed Allen of Johnson City, will ably lead us onward in pursuit of our heritage. My best wishes to him in his year at the helm. Good luck.

*Howard L. Salyer M.D.*

## THE NEW PRESIDENT



CHARLES ED ALLEN, M.D.  
JOHNSON CITY



# CHARLES ED ALLEN, M.D.

## 138th President—Tennessee Medical Association

As the Tennessee Medical Association looks to grow stronger, both in numbers and influence in the coming year, Charles Ed Allen, M.D., a 60-year-old board-certified internist from Johnson City, is ready to lead the way as the Association's 138th president.

Membership recruitment and retention will be a top priority of Dr. Allen during his term. "I would like to see a substantial growth in TMA membership this year, and I would like to see increased participation by those who are already members," Dr. Allen states. "I think we need to educate non-members . . . and even our members . . . of the many activities the TMA carries out on behalf of the physician, so that physicians can concentrate on their medical practice. If we can make them aware of what we do, then it should be easy to sell. And increased numbers will mean increased strength for TMA."

Dr. Allen, a native of Erwin, Tennessee, attended Milligan College and East Tennessee State University for his undergraduate studies. He earned his medical degree from the University of Tennessee College of Medicine in 1954 and began a rotating internship at the University of Tennessee and the City of Memphis Hospitals in 1955. Following two years as an assistant and associate resident, he served as chief medical resident in 1960-61, and as a fellow in cardiology in 1961-62.

Dr. Allen served on active duty and reserve duty in the Medical Corp, U.S. Army Reserve, where he attained the rank of major. Since 1962, Dr. Allen has been in private practice in internal medicine and cardiology in Johnson City.

Dr. Allen has long taken a keen interest in medical education. He was one of the primary forces behind the establishment of the College of Medicine at East Tennessee State University, serving as chairman of the Washington-Unicoi-Johnson County Medical Association steering committee that undertook that task. Dr. Allen has served that institution in several capacities, including professor of medicine, associate dean, and acting dean. He continues in an active role as a clinical professor of medicine.

The alumni association at East Tennessee State

University recognized him with a citation for "Distinguished and Meritorious Service to ETSU and the Citizens of Upper East Tennessee" in 1972, and in 1985 the university established the "Charles Ed Allen Annual Distinguished Lectureship in Medicine" in his honor.

Dr. Allen has served as a delegate to the TMA House of Delegates since 1969. His activities with the Association include stints as vice-speaker (1978-80), speaker (1980-84), member of the Board of Trustees (1978-84 and 1991-present), judicial counselor (1984-88), and president-elect. He has been a board member of the TMA Student Education Fund (TMA-SEF) for the past 19 years, and is currently the president and board chairman.

A member of the American Medical Association since 1963, Dr. Allen has served as a delegate to the AMA House of Delegates for the past six years, following three years as an alternate delegate. He has been an active member of the AMA Section on Medical Schools since 1978, and is currently campaigning for a position on the AMA Council on Medical Education.

Some of the many honors Dr. Allen has received are the TMA Distinguished Service Award, the Governor's Outstanding Tennessean Award, and the Washington County Area Chamber of Commerce Hall of Fame Award.

Dr. Allen is a member of the Washington-Unicoi-Johnson County Medical Association, where he is immediate past-president. He is also a member of the American Society of Internal Medicine, and a fellow of the American College of Physicians. In his community, Dr. Allen is active in the First Christian Church, the Johnson City Medical Center Hospital Foundation, the Hamilton Bank of Upper Tennessee, and the Johnson City Chamber of Commerce.

Dr. Allen is married to Joy Lee (Sechrest), and the couple has four children: Jill, Charles, John, and Jennifer.

TMA is well prepared for whatever challenges lie ahead with such a leader as Charles Ed Allen, M.D., and we are pleased to welcome him as our 138th president.

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**APRIL, 1992**

# **editorials**

## **Medicolegal Cooperation**

As described in the Bible in the Revelation of St. John, the New Jerusalem that the Apostle saw coming down out of Heaven from God needed neither sun nor moon, the Lord God being its light. Neither was there any suffering nor any sorrow, because the Lord God wiped away every tear from their eyes. This was, we are told, the way God had planned the world to be from the beginning and for all eternity. But man, and not only man, but because of him also

his world, fell from grace, and has as a result become subject to all manner of ills, both physical and otherwise; hence the need in the first instance for doctors, and in the second for lawyers.

Owing to both the fallen nature of man, a notion you may or may not accept, and the tribulations inherent in living in a fallen world, which I'm sure you do accept whether you call it that or not, doctors and lawyers often find themselves working at cross purposes. This may be due to different views of what is best for the patient/client (in a fallen world), or what is best for their own fallen selves. If you prefer to call that personal greed or even avarice, instead of fallen nature, that's all right with me; for practical purposes it's a picky point. For whatever reason, it's too bad—for the sake of both their patients/clients and themselves, not to mention our struggling world.

Those of us who care what Jesus thought tend to take great comfort in His series of harsh indictments of the lawyers of His day; I might add that those of us who don't seem to care much about anything else Jesus had to say seem nevertheless to take like comfort. We seem to conveniently forget that doctors don't fare so well, either. It's easy to write that off as being due to their lack of advanced technology, but I suspect it had more to do with a failure to do the very best they could with what they had, since unlike our patients and their lawyers, God never requires that we perform beyond our means.

Without, I suspect, having taken into account all that stuff (not that taking it into account would have made any difference), the doctors and lawyers of this state decided that to ensure domestic tranquility as much as it could be ensured considering (which they may not have but I do) the above stuff, they had better get together and get their act together instead of separately, and so they did, in 1957.

I suspect, though I don't know, that those first tentative explorations eventuated from the increasing litigiousness of society, which is largely a function of the increasing number of lawyers, and the consequent fishing expeditions into medical practice and results that lawyers in this country are allowed to conduct, which are illegal in every other country in the world. It was, as TMA general counsel Marc Overlock points out in his superb overview of the matter in The Juris Doctor article, carried elsewhere in this issue of the *Journal*, a very short, simple document, which as the Interprofessional Code of Cooperation sufficed to establish a working relationship between the two professions.

Two subsequent revisions, the most recent brought about by the increasingly onerous business and regulatory aspects of medicine, and the conse-



quent increasing involvement of lawyers in medical practice, have brought us to the document, carried in the back of this issue, that should serve the two professions as a basis for cooperation as we enter the next millennium. I must of course grant that since entering the new millennium is a few years off yet, it may not; it may in fact be that neither it nor we will enter the new millennium at all—either as individuals or as entities of any sort that either might or might not need such a Code. In short, my crystal ball has become suddenly all fogged up. But the present effort seems in any case to be one that should receive your undivided attention until you have mastered it, because it is likely that one way or another you are going to be in contact with lawyers, and that contact should remain as amicable as possible.

The Code that the professional relations committees of the Tennessee Medical Association and the Tennessee Bar Association have submitted, which has been approved by their respective governing bodies, should be of great help. So should Mr. Overlock's comments. I commend them both to you.

J.B.T.

## Featherbedding the Tube

I have little (read no) firsthand knowledge of the inner workings of the railroads, but I do have a lot of firsthand knowledge of their outer workings, which I regret to say is something that is difficult to come by in this day and age. It's not that riding trains is necessarily fun, though it can be; it's the most fun when you're small and are riding because you want to and not because you have to. It's just that it is, or better, was, a great way of getting from one place to another. A trip on the train had the distinct advantage of beginning and winding up in town instead of some God-forsaken cow pasture in another county from where you wanted to be. When I first started going to Chicago for medical meetings, where a lot of them were because of Chicago's central location, I could go to bed any time after 9 PM in a sleeping car parked in Union Station in Nashville and, after a leisurely breakfast, disembark in Chicago's Dearborn Street Station in mid-morning. It was a leisurely, comfortable trip that beat the current airplane ride all hollow—not the ride itself, necessarily, but the accompanying tribulations.

I could go on about the joys of train travel, but if I were to, you would likely think me at least a tad untruthful, if not demented, or possibly both. A better

reason for knocking it off here is that railroad travel is not what this piece is about. What it is about is, as you might have guessed from the title, featherbedding, which is a practice that the railroads were particularly good at.

Featherbedding is defined in my dictionary as the employment of more workers for a task than is necessary because of some safety regulation or union rule. Applied to the railroads, one thing it meant was carrying an extra team in the cab, the team being a fireman and an engineer. It was the bane of the railroads, costing them as it did a whole lot of money. Obviously, it was a bonanza for the workers; the unions designed it that way. It had the 19th century railroad tycoons crying all the way to the bank, because as usual it was not they who paid the toll, but the public; but I digress.

Back in the early days of television a rather widely practiced custom in Nashville, at least among the people I knew, was to watch sports events with the sound off, and at the same time listen to the event on the radio, the TV announcers being rank tyros as opposed to the radio announcers, who had been at it a while. I have found over the years that an even more salubrious effect can usually be gained by turning off all broadcast sound and listening to canned music of my own choosing while I enjoy whatever activity it is that I am enjoying where the sound is not an integral part of the event, as it is, for example, with a concert or a panel discussion or the like. It has been my experience generally that anyone who cares about all those inane details that the commentators regale us with already knows about them, so that everyone, both those who care and those who don't, winds up bored and annoyed, to put it mildly, and is likely simply to tune the bores out. Announcers are helpful often, commentators almost never.

After any political address, such as the just-ended State of the Union Address by the President of the United States, the commentators swarm out of the woodwork to make sure that what it was you just heard was what you *really* just heard. Or that what you just heard was what they just heard, which obviously is what the President *really* said. Really! Commentators operate on the assumption that most of the listeners are incapable of discerning what was *really* said. As to that, they are, of course, often correct. But the folks who didn't understand what the President said likely won't understand what the commentators are talking about, either.

So when the networks claim they are losing money, and can't afford all that marvelous staff they employ, I say, Right On! Look to the commentators as paragons of featherbedding; isn't that a paradigm

the dictionary writers might consider? In their inflated salaries and their usefulness, the commentators, euphemistically referred to as "anchors" (replacing the more chauvinistic term "anchormen"), are comparable to Mr. Iacocca and the other overpriced car salesmen who accompanied the President to Tokyo as mendicants seeking to wheedle concessions from the Japanese. There is a big, big difference between the way all those individuals see themselves, and the way the public, and particularly their hirelings, see them. *Big* difference! *Big!* *Huge!*

Well, 'bye now. I have to go shopping. But not for a car—or a commentator, either, for that matter, though there appear to be some of both around that are for sale. I already have a Sable, a marvelous vehicle, and so far as I know, one made right here at home by home-folks. They say \$800 of its price goes for the health care package for the workers. How much, would you guess, goes for the top brass? The difference is that the health care package is necessary; I'm relatively certain the top brass would tell you the top brass is, too, though they might get an argument about that. So much for the car salesman and the commentators. See you around the tube.

In the meantime, hang loose. Everything is going to be hunkey-dorey. I know, because Mr. Bush said so.

J.B.T.

## Power Corrupts . . .

Power tends to corrupt, and Absolute power corrupts absolutely.

—Lord Acton

The world owes me a living [and anything else I might want.]

—Jiminy Cricket

When Pete Rose committed whatever it was the Commissioner of Baseball decided he committed, and booted him out of the sport, Mr. Rose still retained the support of Cincinnati Reds baseball fans. Despite that, it is now pretty clear that Mr. Rose will never be inducted into baseball's Hall of Fame. Without thinking it through very well, I concluded at the time that that was probably a bum rap. Some very important reasons have surfaced to convince me it isn't, but that it is a logical and necessary step. Pete Rose bet, which of course nearly every sports fan and some who aren't particularly sports fans do all the time; they don't really think their putting money into

office pools is actually betting. Nobody is going to get us for such a penny-ante activity, even if it is illegal. And anyway, we aren't baseball players. For a baseball player to bet on baseball is considered bad form. That is what Mr. Rose is said to have done. He claims not to have bet on his own team, and as far as I know nobody said he did. It was the principle of the thing. Pete Rose was last year's big story.

The latest big story has been about how former heavyweight boxing champion Mike Tyson raped an 18-year-old Black Miss America contestant in his hotel room and subjected her to unspeakable things, for two of which he was specifically indicted in addition to aggravated rape, leaving her disheveled, and, according to the emergency room doctor who treated her, sorely injured. Though a bevy of supporters have flocked to his corner, not very many responsible people have given Mr. Tyson any succor at all. About the best defense his attorneys could mobilize was that Mr. Tyson is, and always has been, a rough, vicious, loud, lewd gorilla who harbored, and indeed was capable of harboring, few other thoughts than copulation, by force if necessary. Consequently, since everybody ostensibly knew that, the defense maintained that the plaintiff had in fact given her consent for such outlandish activities simply by keeping company with him, or even, I suppose, by just saying hello to him. For the jury, that theory would not wash, and Mr. Tyson is now awaiting sentencing.

Some backhanded support of sorts for Mr. Tyson came rather surprisingly this morning from a sports columnist in our newspaper to the effect that Mike Tyson was the product of an environment that fostered such attitudes and activities, and that he is a young man who had lifted himself up from such a low station by virtue of hard work and the sweat of his brow, and there was something to be said for that. Maybe. One could certainly maintain that by exchanging gross violence with other like-minded young men he has improved his situation, having pocketed, as the columnist said, a trillion dollars (likely hyperbole, but maybe not); whether his efforts took his situation up or down, though, is questionable, since he is unlikely to be able to spend any of it for some time to come, and in any case, most of it will likely have been stolen before he is on the loose again. Then too, quoth the columnist, boxing is not exactly a gentle or even genteel calling. So what did you expect? As for the columnist, he seemed to consider the circumstances extenuating. But he wasn't on the jury, and so what he thinks doesn't count; he apparently doesn't have a whole lot of company, either.



Alongside the column just referred to was an item reporting the third member of the University of Tennessee basketball team to have been arrested for shoplifting. What he lifted was three folders worth something just over a dollar. The other two had stolen headphones from a K Mart store. I'll bet, considering the needs of the basketball team, the players weren't even put on probation. Like the columnist, what I think doesn't count either, but I think that is the least the administration should have done. What I *really* think obviously would stand no chance at all of coming to pass.

Not too long after World War II, say the early 1950s, Archie Moore was the world middleweight boxing champion. No one, including the many men who went down under his gloves, ever uttered, so far as I know, an uncomplimentary word about that champ, as to either his actions or his life. He was an inspiration to a generation of young blacks, having come up, he said, from the poorest, toughest street in St. Louis, by dint of hard work and a dedication to fulfilling his utmost potential. If he were not an anomaly, that would almost excuse prize-fighting. Almost. Mr. Tyson, however, is closer to the norm, even though one would certainly hope that he might be an anomaly in the other direction. It is an interesting commentary that in this day when athletes of all sorts are being paid fancy sums for endorsing everything from baby food to bulldozers, not even so much as a used car lot seems ever to have asked for Mike Tyson's endorsement.

Lord Acton's comment having been quoted from a letter to a bishop, I have a notion he may have been speaking about church activities. I didn't pursue that any further, because it doesn't really matter. People in high places of whatever sort can be sorely tempted to place themselves above the law, and like Jiminy Cricket to think the world owes them whatever they want. That notion runs from presidents of the United States to college basketball players, and the more society makes over them, the stronger that conviction is in danger of becoming. That is why it is absolutely necessary for the pedestal to be knocked out from under those who occupy it unworthily. Since in the eyes of some that might include everybody, maybe I should rephrase that to say those who occupy it with abandon and gross self-interest.

I am just optimistic enough to believe that the conviction of Mike Tyson and the humiliation of Pete Rose might clear some heads, granting that there is a school of thought that considers such an opinion pure drivel. I would be willing to let them try to rehabilitate Mike Tyson provided they never let him out of their sight and keep him on a short leash. Per-

sonally, I'd prefer working with King Kong. In the meantime, the world will be a better place shed of Mike Tyson for however many years it is to be shed of him, any bleeding hearts to the contrary notwithstanding.

J.B.T.



*Tuckey J.T. Hayes Jr.*, age 75. Died February 5, 1992. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

*James P. Leathers*, age 82. Died January 19, 1992. Graduate of Vanderbilt University School of Medicine. Member of Wilson County Medical Society.

*Fay B. Murphey Jr.*, age 82. Died January 14, 1992. Graduate of Vanderbilt University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.



The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

#### **CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY**

*Bruce A. Kaplan, M.D.*, Chattanooga

#### **COCKE COUNTY MEDICAL SOCIETY**

*Dana Phillip Edwards, M.D.*, Newport

#### **CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE**

*Randell S. Skau, M.D.*, Milan

#### **KNOXVILLE ACADEMY OF MEDICINE**

*Bruce N. Allsop, M.D.*, Knoxville

*Harold E. Cates Jr., M.D.*, Knoxville

*Leslie B. Cunningham, M.D.*, Knoxville

*Randy T. Pardue, M.D.*, Knoxville

*Jay H. Warrick, M.D.*, Knoxville

#### **LINCOLN COUNTY MEDICAL SOCIETY**

*Terry Scott Holder, M.D.*, Fayetteville

**MEMPHIS-SHELBY COUNTY  
MEDICAL SOCIETY**

*Judy Jo G. Ash, M.D., Memphis*  
*Joseph Walker Chance, M.D., Memphis*  
*Kenneth A. Ennis, M.D., Memphis*  
*Barry Wayne Frieder, M.D., Memphis*  
*Lawrence L. Gamble, M.D., Memphis*  
*David Lewis George, M.D., Memphis*  
*Susan G. Murrmann, M.D., Memphis*  
*Thomas F. O'Brien Jr., M.D., Memphis*  
*Jose A. Quimbayo, M.D., Cordova*  
*Gary B. Stillwagon, M.D., Memphis*  
*Mark S. Wells, M.D., Memphis*  
*Ramzi Tamer Younis, M.D., Memphis*

**MONROE COUNTY MEDICAL SOCIETY**

*Celia Huddleston Harrison, M.D., Philadelphia*  
*Edward D. Snyder, M.D., Sweetwater*

**NASHVILLE ACADEMY OF MEDICINE**

*Dennis Ogden Bradburn, M.D., Nashville*  
*Gregory A. Mencio, M.D., Nashville*

**NORTHWEST TENNESSEE ACADEMY  
OF MEDICINE**

*John W. Hale, M.D., Union City*

**ROANE-ANDERSON COUNTY  
MEDICAL SOCIETY**

*John Alan Calcagni, M.D., Oak Ridge*

**SULLIVAN COUNTY MEDICAL SOCIETY**

*Donald Aspley, M.D., Kingsport*  
*Doris Taam Hubbs, M.D., Kingsport*  
*Linda A. Jacobson, M.D., Bristol*

**SUMNER COUNTY MEDICAL SOCIETY**

*John J. Rooney, M.D., Portland*

**WASHINGTON-UNICOI-JOHNSON COUNTY  
MEDICAL ASSOCIATION**

*Kendall H. Boyd, M.D., Johnson City*  
*John D. Fenley, M.D., Johnson City*  
*Frederick R. Jelovsek, M.D., Johnson City*  
*Michael F. Shahbazi, M.D., Johnson City*

**WILLIAMSON COUNTY MEDICAL SOCIETY**

*Wolf J. Erlich, M.D., Franklin*

**personal news**

*William H. Edwards, M.D., Nashville*, has been named director of the Division of Vascular Surgery at Vanderbilt University Medical Center, occupying the H. William Scott, Jr. Chair in the Section of Surgical Sciences. Dr. Edwards will at the same time continue in the private practice of surgery at St. Thomas Hospital.

**TMA Members Receive  
AMA Physician's Recognition Award**

The following TMA members qualified for the AMA Physician's Recognition Award during January 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

*Sam Kabbini, M.D., Knoxville*  
*Harvey Asher, M.D., Nashville*  
*Christopher M. Bell, M.D., Crossville*  
*Roy C. Ellis, M.D., Harrogate*  
*Robert M. Glasgow, M.D., Bristol*  
*Theodore F. Hasse Jr., M.D., Knoxville*  
*Thomas W. Higginbotham, M.D., Memphis*  
*H. Kenneth Johnson, M.D., Newport*  
*Ira E. Lew, M.D., Oak Ridge*  
*Edward C. McDonald, M.D., Nashville*  
*Russel D. McKnight, M.D., Morristown*  
*Robert C. Murray Jr., M.D., Nashville*  
*John E. Neumann Sr., M.D., Paris*  
*Evelyn M.B. Ogle, M.D., Memphis*  
*Lu Ponce, M.D., Portland*  
*Lewis F. Preston, M.D., Oak Ridge*  
*Marvin J. Rosenblum, M.D., Nashville*  
*Robert B. Snyder, M.D., Nashville*  
*David J. Switter, M.D., Nashville*  
*Doris J. Wright, M.D., Nashville*  
*Glenn E. Wright, M.D., Knoxville*

**announcements**

**CALENDAR OF MEETINGS**

**NATIONAL**

- |         |   |
|---------|---|
| May 1-3 | American Society for Adolescent Psychiatry—Ritz-Carlton, Washington, D.C.     |
| May 1-3 | Christian Medical and Dental Society—Adam's Mark, St. Louis                   |
| May 1-4 | American Association for the History of Medicine—Crowne-Plaza, Seattle        |
| May 2-7 | American Psychiatric Association—Convention Center, Washington, D.C.          |
| May 2-8 | American College of Occupational Medicine—Sheraton, Washington, D.C.          |
| May 3   | American Academy of Psychiatrists in Alcoholism & Addictions—Washington, D.C. |



May 3-6	Association of American Physicians—Convention Center, Baltimore	May 17-20	American Thoracic Society—Miami Beach
May 3-6	Society of Cardiovascular Anesthesiologists—Sheraton, Boston	May 17-20	Society of Neurological Surgeons—Louisville
May 3-9	American Academy of Neurology—Convention Center/Marriott, San Diego	May 23-27	American Fracture Association—Hyatt Regency Grand Cypress, Orlando
May 4-5	American Laryngological Association—Hyatt Regency, Waikoloa, Hawaii	May 26-30	American Association of Mental Retardation—Hilton, New Orleans
May 4-7	American Pediatric Society—Hyatt, Baltimore	May 27-30	American College of Sports Medicine—Loews Anatole, Dallas
May 4-8	Ambulatory Pediatric Association—Convention Center, Baltimore	May 30-June 2	American Sleep Disorders Association—Hyatt Regency, Phoenix
May 6-8	American Trauma Society—Hilton, McLean, Va.	May 31-June 3	Southeastern Surgical Congress—Westin Peachtree Plaza, Atlanta
May 6-10	American Society of Hypertension—Hilton, New York	May 31-June 5	American Society of Neuroradiology—Adam's Mark, St. Louis
May 9-14	American Gastroenterological Association—Marriott, San Francisco	June 7-12	American Society of Colon and Rectal Surgeons—San Francisco Hilton
May 10-14	Aerospace Medical Association—Fontainebleau Hilton, Miami Beach	June 8-9	Society for Vascular Surgery—Hyatt Regency, Chicago
May 10-14	American Urological Association—Grand Hyatt/Ramada Renaissance, Washington, D.C.	June 9-12	Society of Nuclear Medicine—Los Angeles Convention Center
May 10-15	American Roentgen Ray Society—Marriott World Center, Orlando	June 17-22	National Association of EMS Physicians—Pittsburgh
May 13-15	American Pediatric Surgical Association—The Broadmoor, Colorado Springs	June 18-21	American Association of Neuropathologists—Adam's Mark, St. Louis
May 13-16	American Cleft Palate-Craniofacial Association—Marriott, Portland, Ore.	June 18-23	American Diabetes Association—Marriott Riverwalk, San Antonio, Tex.
May 17-19	American Society of Clinical Oncology—Hilton, San Diego	June 23-27	Undersea and Hyperbaric Medical Society—Hyatt Regency, Bethesda, Md.
May 17-19	American Society for Laser Medicine and Surgery—Buena Vista Palace, Buena Vista, Fla.	June 24-27	Endocrine Society—Marriott Rivercenter, San Antonio, Tex.
May 17-20	American Lung Association—Miami Beach		

#### STATE

May 7-9 American Society for Artificial Organs—Opryland Hotel, Nashville

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# Highlights of the TMA Board of Trustees Meeting

January 18-19, 1992

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular first quarter meeting in Nashville, January 18-19, 1992.

## THE BOARD:

### CRR Recognition of TMA's CME Program

Received a report that TMA has again been recognized as an intrastate accreditor of sponsors of CME for a period of four years (the maximum period awarded).

### Request of Mid-South Foundation for Medical Care

Voted to petition the Board of Directors of Mid-South Foundation for Medical Care, Inc. to consider a previous request by TMA. TMA requested the Foundation to inform a physician being reviewed of his reviewer's credentials in order that the physician can be assured that a peer from his own specialty is performing the review.

### Administrative Appointments

Named L. Hadley Williams as chief executive officer and Donald H. Alexander as executive director effective immediately. The Board also approved a three-year transition plan whereby all administrative responsibilities of the CEO position will be assumed by Mr. Alexander upon Mr. Williams' retirement in April 1995.

### 1992 Budget

Approved the Finance Committee's recommendation for a budget of \$2,363,350 in 1992 with no increase in membership dues.

### Nominating Committee Appointments

Appointed the following nominating committee representing each grand division: *East Tennessee*—Drs. Nat E. Hyder Jr., Johnson City, David G. Gerkin, Knoxville, Sam J. Williams III, Chattanooga. *Middle Tennessee*—Drs. William B. Harwell Jr., Nashville, Will G. Quarles Jr., Livingston, William M. Young, Fayetteville. *West Tennessee*—Drs. James H. Donnell, Jackson, John D. Lay, Savannah, J. Chris Fleming, Memphis.

### Appointment of Standing and Special Committees

Nominated and approved members to serve on each of the standing and special committees of TMA.

### Consultants for Scientific Affairs Committee

Appointed the following consultants to the Scientific Affairs Committee: Drs. Tracey E. Doering, Nashville, Daniel S. Ely, Knoxville, Hyman M. Kaplan, Chattanooga, Ronald D. Lawson, Memphis, D. Randolph Ramey III, Memphis, Alvin H. Meyer Jr., Donelson.

### TMA-SEF Board of Directors Appointments

Appointed the following physicians to serve three-year terms on the Board of Directors of the TMA Student Education Fund: Drs. William L. Hickerson, Memphis, Nat E. Hyder Jr., Johnson City, Ronald L. Pack, Knoxville.

### IMPACT Board of Directors Appointments

Reconfirmed the following members of the IMPACT Board of Directors: Drs. David K. Garriott, Kingsport (1st Cong. Dist.), Robert N. Montgomery, Knoxville (2nd Cong. Dist.), David R. Barnes, Chattanooga (3rd Cong. Dist.), Virgil H. Crowder Jr., Lawrenceburg (4th Cong. Dist.), Ralph Wesley, Nashville (5th Cong. Dist.), Will G. Quarles Jr., Livingston (6th Cong. Dist.), Charles W. White, Lexington (7th Cong. Dist.), Michael A. McAdoo, Milan (8th Cong. Dist.), and Robert D. Kirkpatrick, Memphis (9th Cong. Dist.).

### Health Facilities Penalties Panel

Agreed to renominate Dr. William Mackey, Memphis, for consideration of appointment to the Panel on Health Facilities Penalties.

### Council on Respiratory Care

Agreed to submit the following nominations to the state for consideration of appointment to the Council on Respiratory Care: Drs. Michael E. Niedermeyer, Nashville, B. Daniel Harnsberger, Chattanooga, Charles P. Cole, Johnson City.

(Continued on page 188)



TMA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) as a sponsor of continuing medical education for physicians. Nonaccredited organizations may request TMA's joint sponsorship of CME activities. As an accredited sponsor, TMA is authorized to designate certain CME activities for credit in the AMA Physician's Recognition Award Program.

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

### VANDERBILT UNIVERSITY MEDICAL CENTER

#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

May 1-2	Doppler Ultrasound in Obstetrics and Gynecology
May 21-23	16th Annual Sonography Symposium with 1-Day Seminar on Early Detection of Ovarian and Endometrial Cancer With Transvaginal Sonography
June 3-6	Family Medicine Review
June 5-6	Breast Imaging VI
July 14-17	Contemporary Clinical Neurology
Aug. 7-8	Functional Endoscopic Sinus Surgery Workshop 1992

Aug. 11-16	Contemporary Medical Imaging IX—Hilton Head, S.C.
Oct. 1-3	Lasers in Otolaryngology: Head and Neck Surgery
Oct. 2-3	Laryngeal Video Endostroboscopy Workshop
Oct. 16-17	Gynecologic Surgery Workshop in Pelviscopy, LLETZ, and Laser
Oct. 22-24	Vanderbilt Medical Alumni Association's (First Biennial) Reunion 1992
Oct 23-24	3rd Annual Neonatology Symposium
Dec. 3-5	Lasers in Otolaryngology: Head and Neck Surgery

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

## UNIVERSITY OF TENNESSEE

### Continuing Education Schedule

#### Memphis

May 7-8	Update '92
May 14-15	Diagnosis of Pneumonia in Patients on Mechanical Ventilation (consensus conference)
May 30	9th Annual Pediatric Orthopedic Seminar
June 4-5	General Surgery Update
June 11-21	Obstetrics and Gynecology in Russia—Kiev-Moscow-Leningrad
July 27-Aug. 1	Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.
Aug. 6-7	Health Care for the Poor and Uninsured
Sept. 24-25	24th Memphis Conference on the Mother, Fetus, and Newborn
Nov. 12-14	College of Medicine Alumni Weekend

#### Knoxville

May 26-28	Positron Emission Tomography—Orlando
June 8-9	Pediatric Advanced Life Support Provider Course—Gatlinburg
June 11-13	37th Annual Great Smoky Mountain Pediatric Seminar—Gatlinburg
June 17-19	6th Annual Infectious Disease Update—Gatlinburg
June 24-26	98th Annual Upper Cumberland Medical Society Meeting—Fall Creek Falls, Pikeville
Aug. 17-19	14th Annual Obstetric Office Ultrasound Workshop
Oct. 1-3	15th Cancer Concepts Course—Gatlinburg
Oct. 5-7	Advanced Cardiac Life Support Providers Course
Oct. 26-28	12th Annual Smoky Mountains Seminar in Obstetrics and Gynecology—Gatlinburg
Nov. 6-8	14th Annual Otolaryngology Course for Primary Care Physicians—Gatlinburg
November	9th Annual Alzheimer's Disease Symposium—Gatlinburg

### Chattanooga

May 27-31	Family Medicine Review
June 1-3	Ob-Gyn Summer Seminar
Sept. 17-18	Internal Medicine Update
Oct. 1-2	Care of the Aging Patient
Oct. 22-23	Critical Care Medicine

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

## IN SURROUNDING STATES

### WASHINGTON UNIVERSITY—MISSOURI

May 15-16	Advanced Laparoscopy for the General Surgeon
June 4-7	Advances in Aesthetic & Reconstructive Breast Surgery
June 11-13	Cornea and Contact Lens Conference
June 26-28	Frontiers in Endourology: Laparoscopic Nephrectomy and Beyond (Urologists only)
Aug. 6-8	Clinical Allergy for the Practicing Physician
Nov. 5-8	ISACB 3rd Biennial Meeting: Toward Application of Advances in Basic Cardiovascular Biology
Nov. 21	Hyperlipidemia Seminar

For information contact Cathy Caruso, Office of CME, Washington University School of Medicine, Box 8063, St. Louis, MO 63110, Tel. (800) 325-9862.

### VIRGINIA SOCIETY OF OTOLARYNGOLOGY— HEAD AND NECK SURGERY

May 1-2	Annual Meeting, Virginia Society of Otolaryngology—Head and Neck Surgery—Boar's Head Inn, Charlottesville, Va.
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For information contact Donna Scott, Executive Secretary, Virginia Society of Otolaryngology-HNS, 4205 Dover Road, Richmond, VA 23221, Tel. (804) 353-2721.

## Highlights of the Minutes of the TMA Board of Trustees Meeting . . .

(Continued from page 186)

#### CARE Program

Voted to present a resolution to the House of Delegates calling for a one-year extension of the TMA CARE Program.

#### Charter Amendment of the Tennessee Medical Foundation

Endorsed the concept of restructuring the TMA Impaired Physician Program to be a part of the Tennessee Medical Foundation and to file a charter amendment for the Foundation.

#### Distinguished Service Award

Voted to name Drs. William H. Frist, Nashville, R. Leslie Hargrove, Knoxville, and Pope B. Holliday Jr., Chattanooga, as recipients of the 1992 TMA Distinguished Service Award.

#### Community Service Award

Voted to name Mrs. Barbara ("Bea") Robinson, Nashville, Mr. Larry Self, Cookeville, and Mr. W. Jack Walker, Knoxville, as recipients of the TMA 1992 Community Service Award.

#### Endorsement for AMA Council on Medical Education

Ratified the TMA-AMA Delegation endorsement of the candidacy of Dr. John E. Chapman for reelection to the AMA Council on Medical Education.

#### Endorsement for AMA Medical Student Section

Endorsed the candidacy of Mr. Glenn Crater, UT Memphis Medical School student, for the AMA Medical Student Section Governing Council.

#### TMA Representative to Tennessee Eldercare Coalition

Appointed Dr. Richard Lane, Franklin, as TMA's representative to the Tennessee Eldercare Coalition.



# Interprofessional Code of Cooperation

## Between the Tennessee Bar Association And the Tennessee Medical Association

### PREAMBLE

This Code recognizes that there is a significant interrelationship between medicine and law. A substantial part of that interrelationship is concerned with the problems of persons who are in need of the combined services of an attorney and a physician and that the individual problems in these circumstances are best served by the cooperative efforts of all concerned. It is believed that the interests of the patient/client can best be served when the two professions understand the goals and responsibilities of the other and work together with cooperation and mutual respect. Therefore, the members of the Tennessee Medical Association and the Tennessee Bar Association do adopt and recommend the following Code of Cooperation as standards of proper conduct for physicians and attorneys to promote understanding and cooperation between the two professions.

### ARTICLE I

#### Physician-Patient "Privilege"

##### Section 1. General

Unlike most states, there is no general physician-patient privilege in Tennessee. Only communications between a patient and a physician "practicing as a psychiatrist" are protected from disclosure under state law. Even the limited psychiatrist-patient privilege does not apply if the patient's mental or emotional condition is an issue in a lawsuit.

As an ethical matter, however, the American Medical Association takes the position that information disclosed to any physician by a patient is "confidential to the greatest possible degree" and that the physician "should not reveal confidential communications or information without the express consent of the patient, unless required to do so by law." It should be noted that Tennessee law provides that the Board of Medical Examiners can take disciplinary action against a physician for certain proscribed conduct, including "willfully betraying a professional secret."

While, as a general rule, a patient's medical records and information known to the patient's physician are considered confidential, certain exceptions apply when the patient has brought a lawsuit raising an issue which concerns the patient's medical or physical condition. These exceptions permit a physician, both legally and ethically, to disclose otherwise confidential information about a patient.

##### Section 2. Patient's Written Authorization

Patients may authorize their attorneys, as well as attorneys for other parties in a lawsuit, to obtain a copy or a summary of their medical records of information related to their medical condition. If presented with a signed authorization (such as the form included in the Appendix to this Code), the physician is obligated to provide a copy of the patient's records to the person authorized to receive them. The authorization must be signed by the patient, the parent or guardian of a minor patient, the legal guardian of an incompetent patient, or the personal representative or next-of-kin if the patient is deceased.

An authorization may be general or limited. It may be a general release to allow inquiry into all aspects of the physician-patient relationship, or it may be limited to only certain conditions or time periods or to copies of medical records only. An authorization may also be revoked by the patient upon written notice to the physician.

An attorney who represents a client whose mental or physical condition is an issue in a lawsuit should provide opposing counsel with a medical authorization if requested to do so.

##### Section 3. Depositions

Medical information, including medical records, may be disclosed at a deposition if the patient is a party to the lawsuit or if notice has been given to the patient or the patient's attorney that the information will be disclosed at the deposition.

##### Section 4. Court Order

A physician must produce copies of medical records in response to a court order in accordance with the terms of the order.

##### Section 5. Subpoena

A subpoena issued by the clerk of a Tennessee court or a federal court may require a physician to bring a patient's medical record to a deposition.

A subpoena may not be issued requiring a physician to send medical records to an attorney. Attorneys are required by the rules of civil procedure to issue a subpoena commanding a witness to appear at a trial, hearing or deposition and to bring the records. The purpose of this is to prevent an attorney from getting medical records from a doctor when the patient and the patient's attorney are not aware that adverse counsel is acquiring them. A physician should not refuse to turn over records



in response to a subpoena without first consulting a personal attorney.

A subpoena may also require a custodian of a physician's medical records to present the medical records and give a deposition as to how the records are maintained. The custodian of the records must appear with the records at the time and place designated in the subpoena.

#### **Section 6. Workers' Compensation Cases**

If a physician treats a patient for an injury covered by workers' compensation benefits and is billing the employer or the employer's insurer directly, the physician is required by statute to provide medical records and medical reports to the employer or the employer's workers' compensation carrier. Only those records relating to the injury which is the subject of the workers' compensation claim should not be disclosed. The statute requiring disclosure does not apply where the physician is employed solely by the injured worker for treatment or evaluation.

#### **Section 7. Criminal Investigations**

A large number of federal and state agencies have the authority to issue "investigative" subpoenas, i.e., subpoenas where no lawsuit has been filed. Such agencies include, for example, the Federal Bureau of Investigation (FBI), the Tennessee Bureau of Investigation (TBI), the Internal Revenue Service (IRS), the Drug Enforcement Administration (DEA), and agencies which work either on the federal level with the United States Attorney's Office or with state and local attorneys general. Examples of such subpoenas would include investigative efforts by federal and state grand juries. In response to a subpoena for a patient's medical records from the FBI or TBI, the physician should provide the agent with copies of the patient's medical records.

#### **Section 8. Licensure Investigations**

The Office of the General Counsel for the Department of Health has the power to issue subpoenas once a Notice of Charges has been filed before a licensing board. The subpoena can direct the production of documentary evidence, it can compel a person to testify at a hearing, or it can compel a witness to testify by deposition.

### **ARTICLE II Medical Records**

Medical records are those documents maintained by a physician which reflect the patient's medical history and which are made and kept as the patient is seen by the physician for treatment or consultation. They are kept for the benefit of both the patient and the physician. According to the American Medical Association, the medical records belong to the physician, but copies of the records should be provided to the patient upon request.

When asked to provide a copy of a patient's medical record, the physician should provide a copy of each

document within the patient's file. If, for some reason, the physician declines to provide a copy of the entire file, the physician should notify the attorney requesting a copy of the medical record as to which documents have not been provided in response to the request.

Most problems with providing copies of medical records can be resolved by effective communication between the physician and the attorney requesting the records. An attorney should not resort to subpoenaing the physician to bring a medical record to the attorney's office for copying unless reasonable efforts to obtain copies from the physician have failed.

### **ARTICLE III Medical Reports**

#### **Section 1. From a Treating Physician**

In order to evaluate or prepare a client's case, an attorney may request a medical report from the treating physician. These requests generally elicit information and opinions not ordinarily part of the patient's medical record. Adequate medical reports play an important part in an attorney's evaluation of the patient's lawsuit and can also reduce the amount of time required for depositions. Consequently, the physician should comply fully and promptly with requests for medical reports.

An attorney should outline in a letter to the physician the specific information required in the medical report and request the report at least 30 days before it is needed. The attorney should provide the physician with a written authorization from the client/patient for release of the requested information.

If the physician is unable to make a complete medical evaluation within 30 days of the request for a medical report, the attorney should be notified promptly; delays in receiving medical information may prejudice the patient's legal position. Perhaps a preliminary report, clearly designated as such, may serve the attorney's needs until a complete evaluation can be given.

The following information, where applicable, should be included in the report of a treating physician:

1. Date, time, and place of first visit;
2. An accurate history of the injury or medical condition, including any preexisting diseases or prior injuries;
3. The nature of the physician's examination and findings;
4. The results of pertinent laboratory studies, x-rays and consultations;
5. A summary of the treatment rendered, the results of subsequent examinations, x-rays and other tests and consultations, and the patient's response to treatment;
6. The dates or periods during which the patient was unable to work in a usual occupation;
7. The physician's diagnosis and prognosis, including an evaluation of future impairment or surgery, the effect or aggravation of any preexisting disease or



prior injury, and the length of convalescence;

8. A statement as to whether the patient's condition is stable or whether the patient has been discharged or continues under care and treatment;

9. As a separate enclosure, an itemized statement of the physician's charges to date, omitting charges for medical reports or attorney consultation;

10. An estimate of the cost of future medical care.

Upon request, supplemental reports should be sent periodically to the attorney requesting the report. A final report upon the patient's discharge or referral to another physician should be submitted only if requested.

## **Section 2. From an Examining Physician**

When the physical or mental condition of a party to a lawsuit is in controversy, the opposing attorneys may agree to (or the court may order) a physical or mental examination of the party by an independent physician.

The attorney requesting the examination has the responsibility of making arrangements with the examining physician for the date and time of the examination as well as the scope of the examination.

The physician, after examining the party, submits a detailed written report to the attorney requesting the examination, setting out the physician's findings, including results of all tests made, diagnoses, and conclusions. The list included in the preceding section for reports of treating physicians may be used as a guide.

The attorney for the injured party may also request a physician to evaluate the client's condition and submit a written report.

## **ARTICLE IV Conferences**

### **Section 1. General**

Professional courtesy to the physician and duty to the client demand that the attorney confer at appropriate stages with the physician, and similar considerations demand that the physician recognize the necessity for one or more conferences and be available at a mutually convenient time. The physician and attorney are burdened with a heavy schedule of daily activities and neither should make unreasonable demands upon the other, but should yield to the dictates of ordinary civilities and strive to adjust their activities in such a manner as to produce minimum inconvenience. Absent an unforeseen emergency, it is an act of discourtesy for either to keep the other waiting for an appointment, conference, deposition or any other engagement.

### **Section 2. Predeposition and Pretrial Conferences**

It is the duty of each profession to present fairly and adequately the medical questions involved in legal controversies. To that end, predeposition and/or pretrial discussions between the physician and the attorney should be arranged in order that they may have a full and frank discussion of the pertinent medical and legal issues. It is

preferable to undertake to offer medical testimony with the advantage of such a conference. A physician is not a witness for either party and may freely conduct such a conference with the attorney representing each side of the controversy.

## **ARTICLE V The Physician Witness**

### **Section 1. General**

The American system of justice depends upon the obligation of every citizen, including physicians, to attend judicial proceedings and give testimony when such testimony is relevant to a case. Attorneys have a concomitant duty to avoid abusing the power of legal process and should take steps to minimize inconvenience to the physician (especially because of its impact on the physician's patients) insofar as possible.

In Tennessee, most medical testimony is given by deposition in the physician's office. Under state law, a physician has a statutory exemption from a subpoena to testify at the trial of a civil case. In federal court, however, the physician can be compelled to attend the trial and give testimony in open court as do other witnesses. Whether the physician's testimony is given by deposition or in court, the testimony is under oath.

### **Section 2. Testimony by Deposition**

#### *a. Deposition Defined:*

A deposition is an official proceeding authorized by law whereby a person, such as a physician, may be required to give testimony and be cross-examined under oath outside of court, before a person authorized by law to administer oaths, and in the presence of attorneys representing the parties. The physician may be required to produce medical records at the deposition. The physician may also be required to release these records, i.e., complete records, x-rays, ECGs, EEGs, to the court reporter for duplication and return.

#### *b. Time and Place:*

The time and place of the deposition should be fixed by agreement. Unless there is a compelling reason to the contrary, it should be taken at the physician's office. As a courtesy, the attorney should arrive promptly and the physician should be available at the agreed time.

#### *c. Subpoenas:*

Because of conditions in a particular case or jurisdiction or the necessity for protecting the interests of the client, the attorney may find it necessary to subpoena the physician as a witness. (See also Article I, Section 4.)

#### *d. Subpoenas—Medical Records*

Production of medical records may also be required by subpoena served on the physician or the custodian of the physician's records. If so, the records must not be delivered or disclosed to the process server. The subpoena requires the person served to attend the deposi-



tion at the time and place stated in the subpoena and there produce the specified records. It is improper for a process server to obtain possession of subpoenaed records; it is also improper for a process server to state that it will not be necessary for the physician to attend the deposition hearing described in the subpoena if the medical records are surrendered for copying or otherwise. *However, the physician may produce medical records by mailing legible photocopies if the subpoena so states.*

*e. If Attendance at Deposition is a Hardship:*

If the time and place described for the deposition creates a hardship, the attorney or physician having the conflict should immediately bring this fact to the attention of all concerned parties.

### **Section 3. The Physician in Court**

*a. Duty to Testify:*

Our system of justice depends upon being able to require any citizen's attendance at a judicial proceeding and to give testimony regarding the case. A physician must respond to a subpoena in criminal cases and in the federal courts as any other citizen except where a grave emergency prevents the physician from doing so. The same obligation exists in all other cases unless the physician claims the exemption in the manner provided by law. (*See Article V, Section 1.*) To obtain the benefit of the exemption the physician must notify the officers serving the subpoena that they are serving a physician and claim the exemption. Failure on the part of the physician to so comply with the statute voids the exemption and the physician is required to appear in court as commanded by the subpoena unless, upon application made to the judge before whom the case is set, the physician is excused. Notwithstanding the above, it is incumbent upon lawyers to recognize that court appearances operate to deprive the physician of valuable and sorely needed time. Moreover, there are many cases of personal injury wherein the injuries lie within the common knowledge of the layman and therefore the appearance of the physician serves no useful purpose. However, in those cases involving serious injury, complicated procedures and/or permanent disability, the personal appearance of the physician is highly desirable, if not indispensable.

Attorneys and physicians are enjoined to approach this problem on a mutually fair basis and to arrive at an understanding which will facilitate more complete justice which is the historic object of all court procedures.

*b. Subpoenas for Trial:*

Attorneys subpoena medical witnesses because:

1. It may be desirable in a particular case for the physician to appear and testify in person, if asked, pursuant to a subpoena; or
2. It may be essential in order to secure a continuance if for any reason the physician fails to appear as required.

A physician, therefore, should not take offense at being served with a subpoena. Cooperation and communication between professions is essential. Physicians should be given reasonable notice of pending court appearances. It is up to the attorney who caused the subpoena to be issued to see that the subpoena has been served within a reasonable time. Additionally, if settlement of the case occurs prior to the court appearance the attorney should provide as timely a notice to the physician as possible.

*c. Arrangements for Court Appearances:*

In arranging for the attendance of a physician at a trial the attorney should always give due regard and consideration to the professional demands upon the physician's time. Accordingly, it is the duty and responsibility of the attorney, before the trial:

1. To give the physician reasonable notice in advance of any intention to call the physician as a witness,
2. To arrange for the physician's voluntary attendance or to advise the physician of any intention to have a subpoena issued, if either the physician or attorney deem this necessary or desirable,
3. To advise the physician of the date, approximate time and place of testimony,
4. To advise the physician to bring such records as will be needed for the proper presentation.

During the trial, the attorney is obligated, as a matter of courtesy:

1. To call the physician after the trial has commenced, and thereafter as the trial progresses, and give the best possible estimate of the approximate time the physician will take the witness stand,
2. To call the physician to the witness stand as promptly as possible.

### **Section 4. Expert Witness**

Although all physicians are "expert witnesses" because of their experience and medical training, a technical distinction is made between physicians who testify based upon and about facts gained from personal observation of a patient (fact witnesses), and physicians who give opinions based upon facts furnished to them for review in the course of litigation (expert witnesses). Physicians may be asked to testify as expert witnesses most frequently in medical malpractice cases regarding the standard of care and whether, under the facts presented in a lawsuit, there was a deviation from the standard of care. Physicians may also be asked to give their opinions as expert witnesses regarding the cause of a party's injury or illness in personal injury cases.

A physician is generally considered to have no legal duty to give opinions as an expert witness. For the most part, treating physicians are only expected to give opinions relating to their own evaluation and treatment of the patient.

If a physician has been retained as an expert witness by an attorney, the attorney may properly require—as part of the physician's contract of employment—that the



physician not discuss the lawsuit or the physician's opinions as an expert witness with the attorneys for other parties to the suit. Attorneys for other parties may properly ask the expert witness for information. However, these inquiries must be initiated through the contracting attorney and not through the expert witness directly.

## ARTICLE VI Compensation of Physician

### Section 1. General

A potential source of conflict between the medical and legal professions is the nonpayment of fees for the services of a physician as a medical witness, an expert medical evaluator; or for medical reports, copies of records or time spent preparing for and giving depositions. While instances of nonpayment are rare, they are common enough in some localities to arouse strong feelings. Most problems in this regard could be avoided if the physician's charges and the responsibility for payment were discussed and agreed to by the physician and the attorney in advance of the physician's services. A request by an attorney for a physician's services should state the person responsible for the charges.

The guidelines in Article VI are necessarily broad in scope and generalized in nature. They require sincerity of application and forthrightness of interpretation by our respective professions in the pursuit of the standards herein established.

### Section 2. Compensation Must Not Be Contingent

Under no circumstances may a physician charge or accept compensation for any service which is contingent upon the outcome of a lawsuit.

### Section 3. Compensation for Reports

#### a. By an Attending Physician:

The attending physician is entitled to a reasonable fee for the preparation of narrative reports. A clerical fee only should be charged for duplication of records.

#### b. By an Examining Physician:

The compensation of an examining physician rests principally upon contract or is determined by custom and past practice. As a guideline, however, the examining physician should charge for the reasonable value of services so rendered on the same basis as if services were not rendered to a patient involved in litigation, or should make such charge as is customary in the particular field or medical specialty. If there is any question as to the charge, it should be discussed and an agreement reached prior to the rendition of the requested services.

### Section 4. Conferences and Consultations

The physician is entitled to fair and reasonable compensation for time expended in conference or consultation with the attorney and in preparation therefor, provided, however, this charge should be consistent

with the customary charges made by the physician in the course of practice.

### Section 5. Depositions and Court Appearances

The physician is entitled to fair and reasonable compensation for depositions and court appearances.

An attorney should not request a physician to testify by deposition or in court, nor should the attorney subpoena the physician without making arrangements for reasonable compensation. Unless a course of dealings has been established between the attorney and physician, the matter of compensation should be arrived at by conference in advance of the deposition or trial.

### Section 6. Responsibility for Payment

It shall be the obligation of the attorney to take all reasonable steps and to make every reasonable effort to insure that adequate arrangements are made for the payment, by the client, of all compensation of attending physicians for services rendered in connection with litigation. This shall include reports, conferences, consultations, depositions and trial appearances.

The payment of an examining physician's fee for the examination and report, and subsequent depositions or court appearances, is the obligation of the attorney requesting such an examination.

Appendix A provides a suggested solution to the matter of the compensation of physicians by the simple expedient of obtaining the client's authorization to pay the physician's compensation out of the proceeds of any recovery.

This procedure is to be encouraged.

## ARTICLE VII Administration of Code and Grievance Procedure

The Tennessee Medical Association and the Tennessee Bar Association, by appropriate action, shall appoint or designate six members from each Association (two from each Grand Division of the State). The 12 members so selected shall be known and designated as the "Medical-Legal Code Committee."

Two of the initial members from each Association shall serve for one year, two for two years, and two for three years; thereafter, members shall be appointed for three-year terms.

The chairmanship of the committee will rotate annually between the two professions, with the committee selecting its own chairman. There shall be a vice-chairman from the Association not having the chairmanship.

The Medical-Legal Code Committee shall:

a. Meet upon call of the chairman, or upon call by any five members.

b. Promulgate such suggestions as may be necessary to carry into effect the principles hereby adopted.

c. Attempt to mediate and arbitrate, on a local level, any disagreement arising between individual physicians and individual attorneys, and to this end,

the committee is authorized to sit in sections of four members each (one section from each Grand Division of the State), and to hold such hearings at such times and places as the section may deem appropriate.

If the foregoing procedure shall not result in a satisfactory settlement or adjustment of the dispute, any dissatisfied party, or the section itself, may request a hearing before the full committee.

If the hearing before the full committee does not resolve the controversy, the chairman of the committee shall certify the facts to the Board of Trustees of the Tennessee Medical Association and the Board of Governors of the Tennessee Bar Association, for such action as may be appropriate.

d. Report annually to each association the activities of the committee during the year and make such recommendations as the committee considers proper.

### CONCLUSION

Each profession is obligated by its own stature to respect and honor the calling of the other. One who has chosen to be a physician or an attorney and has been found competent to be such by appropriate authorities is vested with high responsibilities and privileges to serve the public with honor, with dignity, and with effectiveness. These standards of practice are intended as a guide to the attainment of the best in interprofessional conduct and practice.

The interests of the patient/client are primary. Physicians and attorneys should communicate with each other on behalf of those interests. This Code should be used as a primary instrument to facilitate this communication.

The Code promotes courtesy between professions as well as considerations of time demands and expense demands by each profession to the other. Guidelines within the Code suggest general roles of each profession and will help clarify who is responsible for communication on specific subject matters. For instance, the contents of medical records, and generating medical reports, are primarily the physician's role. On the other hand, the scheduling of conferences, depositions, the use of a physician as a witness, or the issuance of subpoenas are primarily the attorney's role.

*While this Code is not intended to be binding in character or create a standard of care applicable to both professions, it is hoped that every physician and attorney practicing in Tennessee will abide by the spirit as well as the letter of the principles.*

County medical societies and bar associations are strongly urged to implement these standards by adapting them to local situations.

### TENNESSEE MEDICAL ASSOCIATION

#### Interprofessional Liaison Committee

Thomas K. Ballard, M.D., Chairman; James A. Moore, M.D.; John P. Nash, M.D.; Melborne A. Williams, M.D.; Henry P. Pendergrass, M.D.; Charles E. Jordan III, M.D.; Joseph B. Moon, M.D.; Hays Mitchell, M.D.; Duane C. Budd, M.D.; Richard T. Light, M.D., Ex-Officio; Robert E. Bowers, M.D., Division Coordinator.

### TENNESSEE BAR ASSOCIATION

#### Legal/Medical Interprofessional Code Committee

Ward DeWitt Jr., Attorney, Chairman; Wm. Landis Turner, Attorney; Edward G. White II, Attorney; J. Houston Gordon, Attorney; John W. Nolan III, Attorney; Olen G. Haynes, Attorney; Paul Campbell III, Attorney; Jerry Mitchell, Attorney; Lee Barfield, Attorney.

### APPENDIX A

#### Suggested form of Authorization (example only)

I, \_\_\_\_\_, hereby authorize and direct \_\_\_\_\_, my attorneys, to pay, from the proceeds of any recovery in my case, to Dr. \_\_\_\_\_ a reasonable amount for professional services in the treatment of injuries sustained by me and/or my spouse and/or my child or children, as the case may be, in an accident which occurred on \_\_\_\_\_, 19\_\_\_\_\_, said payment to include professional services heretofore rendered and those rendered to the time of the settlement or other disposition of my case for the treatment of said injuries, and fees for reports, conferences, depositions and/or testifying in court.

I understand that this, in no way, relieves me of my personal responsibility to pay all such medical charges.

I further authorize said physician to furnish my said attorneys with any reports requested in reference to my injury, arising out of an accident on \_\_\_\_\_ (date) and to allow them to inspect and copy any records, charts, papers or documents pertaining to my medical history and treatment in connection with such injury.

Signed \_\_\_\_\_

Revised and adopted by the Tennessee Medical Association and the Tennessee Bar Association, 1991.



# *Medical Management and Prevention Guidelines for Children With Sick Cell Disease*

WINFRED WANG, M.D.; SARA DAY, R.N.; ERNEST TURNER, M.D.;  
MANOO BHAKTA, M.D.; and SUSAN ERICKSON, R.N., M.P.H.

## **Introduction**

Sickle cell disease refers to a group of clinically significant hemoglobinopathies involving sickle hemoglobin (Hb S). The most common types of sickle cell disease are sickle cell anemia (Hb SS), sickle cell-hemoglobin C (Hb SC) disease, and sickle  $\beta$ -thalassemia (Hb S $\beta$ -thalassemia). One of the most prevalent genetic conditions, sickle cell disease affects approximately 1 out of 350 black newborns in the United States.

Tennessee is among the 36 states that include hemoglobinopathy testing in their newborn screening programs. The goals of newborn screening are (1) to identify infants with sickle cell disease at birth, (2) to enroll these infants in a program familiar with the

management of sickle cell disease, (3) to initiate prophylactic penicillin treatment for these infants at age 3 months, and (4) to provide comprehensive family education regarding sickle cell disease. If these specific objectives are attained, the overall goal of reduced morbidity and mortality in children with sickle cell disease may be reached.

Although many children with sickle cell disease receive follow-up at comprehensive sickle cell centers, their locations may not always be convenient for obtaining care when problems arise. Therefore, these children may go to their physician's office or local emergency room to be evaluated for this serious, perhaps life-threatening, condition. This article provides guidelines to help the general pediatrician/family practitioner manage and prevent medical problems that occur frequently in children with sickle cell disease.

## **Infection**

In sickle cell disease, infections are a major cause of morbidity and mortality. Because of compromised function of the spleen, young children with sickle cell disease have a greatly increased susceptibility to

From the Mid-South Sickle Cell Center, University of Tennessee, and St. Jude Children's Research Hospital, Memphis (Dr. Wang and Ms. Day); the Comprehensive Sickle Cell Center, Meharry Medical College, Nashville (Dr. Turner); the Sickle Cell Disease Program of Chattanooga (Dr. Bhakta); and the Newborn Hemoglobinopathy Screening Program, Tennessee Department of Health, Nashville (Ms. Erickson).

Reprint requests to Department of Hematology-Oncology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105 (Dr. Wang).

encapsulated bacteria. The most common serious pathogen is *Streptococcus pneumoniae* (pneumococcus). In children under 3 years of age with Hb SS, the incidence of pneumococcal septicemia is 6 cases per 100 patient-years.<sup>1</sup> This often fulminant illness can progress from onset of fever to death in less than 12 hours; its case fatality rate may be as high as 35%. Similarly, children with Hb SC disease have an increased incidence of pneumococcal bacteremia, though mortality due to overwhelming sepsis is less likely.

*Haemophilus influenzae* B is the second most common cause of sepsis in young children with sickle cell disease,<sup>2</sup> who have an estimated risk two to four times that of normal children. Unlike pneumococcal infections, *H. influenzae* infections often have an insidious onset.

### Prophylaxis

A recent double-blind study from the National Institutes of Health demonstrated an 84% reduction in the rate of pneumococcal sepsis in young children with sickle cell anemia who received oral prophylactic penicillin twice daily.<sup>3</sup> It is now mandatory for all children with sickle cell anemia to receive penicillin V potassium 125 mg orally twice a day beginning at 3 months of age. At age 3 years, the dose is increased to 250 mg orally twice a day. In addition, pneumococcal vaccine (23 valent) should be administered at age 2 years, with a booster at age 5; this is only an adjunct to prophylactic penicillin, however, as the vaccine does not include all pathogenic strains of pneumococcus, and the antibody response against some strains is poor. Children with sickle cell disease also should be immunized with an *H. influenzae* type b (HIB) conjugate vaccine, such as HbOC, at 2, 4, 6, and 15 months of age.<sup>4,5</sup> If they have not been immunized by the age of 5 years, they should receive a single dose of a conjugate vaccine.<sup>5</sup>

In summary, our recommendations for prevention of serious infection are:

- Early diagnosis through newborn screening.
- Education of the family regarding the importance of prophylactic penicillin and the need for prompt medical evaluation of fever.
- Initiation of prophylactic penicillin at age 3 months.
- Pneumococcal vaccine at age 2 years, with a booster at age 5.
- HIB conjugate vaccine at ages 2, 4, 6, and 15 months.

### Fever

Because of their increased susceptibility to serious infections, children with sickle cell disease who develop a fever (temperature  $\geq 102^{\circ}\text{F}$ ) must be promptly evaluated to determine the source of their fever and the need for treatment.

Management guidelines are:

- A complete physical examination should be performed.
- Initial laboratory evaluation should include complete blood count, reticulocyte count, blood culture, chest x-ray, and urinalysis.
- Patients with risk factors described below should be admitted to the hospital.

Management guidelines for patients requiring admission are:

- Intravenous antibiotic therapy should be started as soon as possible (within three hours of documented fever). Cefuroxime IV 50 mg/kg every six to eight hours or ceftriaxone IV 50 mg/kg every 12 to 24 hours are currently recommended.
- After 72 hours, if all cultures are negative and fever has resolved, the patient may be discharged.
- Prophylactic penicillin must be resumed when therapeutic antibiotics are discontinued.

Clinical assessment determines whether the febrile child requires admission. Factors that mandate admission are toxic appearance, temperature  $\geq 104^{\circ}\text{F}$ , a markedly elevated or decreased WBC count and a differential with a left shift, poor oral intake, and an unreliable caregiver or transportation difficulties.

Factors that favor admission are: young age ( $< 3$  years), diagnosis of Hb SS, absence of a focus of infection (such as otitis media, upper respiratory infection, mild gastroenteritis), and sudden onset of fever.

Patients who are not admitted to the hospital require close outpatient follow-up, including at least daily evaluation by phone, until the fever resolves.

### Splenic Sequestration Crisis

In a splenic sequestration crisis, blood pools in the spleen, leading to acute splenic enlargement, increased anemia, and, if severe, signs of hypovolemic shock.<sup>6</sup> This is the second most frequent cause of death in children under age 5 years with sickle cell disease. Sequestration crises are often associated with a viral illness. Children who have experienced one sequestration crisis are more likely to develop another.

Therapy guidelines are:

- A mild sequestration crisis (moderate increase in spleen size, a decrease in hemoglobin [hb] of  $< 3$  gm/dl, when compared to baseline) may resolve



spontaneously without treatment. Hospitalization is necessary for careful monitoring of spleen size and hb level.

- If the crisis is severe (massive splenomegaly, fall in hb > 3 gm/dl, signs of hypovolemia), provide O<sub>2</sub> and infuse normal saline or Ringer's lactate, 10 to 20 cc/kg, as fast as possible to maintain perfusion. Then transfuse with 10 to 15 cc/kg packed red blood cells (PRBC). Check hb level four hours after transfusion.

- Splenectomy is often recommended for a child who has had a severe sequestration crisis and is over age 2 years. A chronic transfusion program to maintain Hb S <30% may be recommended for children less than 2 years of age.

- Education of parents can decrease the mortality from this complication. Parents should be aware of the symptoms of a sequestration crisis and should be taught to palpate the spleen.

## Aplastic Crisis

An aplastic crisis is a transient episode of failure of red blood cell production. Erythroid precursors in the bone marrow and circulating reticulocytes are greatly reduced. Because of the shortened red cell life span in sickle cell disease, even a temporary interruption of erythropoiesis results in a rapid fall in hb level. B-19 human parvovirus is the usual cause of an aplastic crisis.<sup>7</sup> Parvovirus is highly transmissible, and infections often occur in community epidemics.

Patients show a decreased hb level and a low reticulocyte count (usually <1%), lethargy, tachypnea, tachycardia, and fever. This condition is often preceded by nonspecific symptoms of a viral illness.

Therapy guidelines are:

- Slowly transfuse 5 to 10 cc/kg PRBC if: hb level is ≤5 gm/dl and reticulocyte count is low, or symptoms of cardiac or pulmonary stress are present.

- Place hospitalized patients in isolation. Pregnant caretakers should not be exposed, since human parvovirus can lead to second-trimester and third-trimester abortion.

## Acute Chest Syndrome

This term is used to describe fever and radiologic evidence of a pulmonary process (with or without respiratory symptoms) in a person with sickle cell disease.<sup>8</sup> Pneumonia is more likely in children under age 5 years of age; in older children and adults, pulmonary infarction is more common. It is usually impossible, however, to distinguish pulmonary infarction from pneumonia, and the two processes are likely to coexist. The most common identifiable organisms causing pneumonia are *S. pneumoniae*,

*H. influenzae*, *Mycoplasma pneumoniae*, and chlamydia. A specific etiology, however, is not usually found. Recurrent episodes of acute chest syndrome are common.

Because the condition of children with acute chest syndrome can deteriorate rapidly, these children should be hospitalized and carefully monitored.

Therapy guidelines are:

- Administer cefuroxime, 50 mg/kg IV every six to eight hours, or ceftriaxone, 50 mg/kg IV every 12 to 24 hours, for four to five days or until symptoms resolve. If mycoplasma infection is prevalent in the community, or if there is no response to initial antibiotic treatment, erythromycin should be added empirically.

- Provide oxygen to maintain an O<sub>2</sub> saturation ≥95%. (Arterial blood gas studies may be needed to confirm decreased O<sub>2</sub> saturation detected by pulse oximetry.)

- Perform a transfusion of 5 to 10 cc/kg PRBC if there is: hypoxemia (pulse oximeter indicating <90% O<sub>2</sub> saturation), drop in hb level of ≥2 gm/dl below baseline, and significant respiratory distress.

- After stopping antibiotic treatment, an oral antibiotic (e.g., cefaclor [Ceclor], erythromycin/sulfisoxazole [Pediazole] should be given to complete a 10-day course.

- Take a follow-up chest x-ray in three to four weeks to determine if the infiltrate is resolved.

## Vaso-Occlusive Pain Crisis

One of the most debilitating problems in patients with sickle cell disease is the vaso-occlusive pain crisis.<sup>9</sup> Pain is caused by an acute ischemic tissue injury resulting from obstruction of blood flow by sickled erythrocytes. Pain crises may be precipitated by infection, fever, dehydration, or exposure to cold. The frequency and severity of these events are quite varied.

When a child with such pain enters the emergency room or physician's office, careful examination should be performed to exclude other conditions before the diagnosis of a pain crisis is made. Osteomyelitis should be considered if there is localized bone pain, soft tissue swelling, and significant fever (although these signs also occur commonly with bone infarction). Patients with chest pain should receive a chest x-ray to rule out acute chest syndrome. Cholecystitis, appendicitis, splenic sequestration, and urinary tract infection must be considered in patients with abdominal pain or low back pain.

Prompt treatment with fluids and adequate analgesia is crucial in the management of a crisis.

## SICKLE CELL DISEASE/Wang

*Mild painful events* can often be managed at home. Treatment guidelines for home management are:

- Increase fluid intake to approximately 100 cc/kg/day. Fruit juice, water, and decaffeinated soft drinks are recommended.

- Tylenol or Tylenol with codeine are used frequently for analgesia. The dosage for Tylenol with codeine elixir for children 3 to 6 years of age is 5 to 10 cc every four hours as needed (prn); for patients 6 to 12 years of age, 10 to 15 cc every four hours prn. Ibuprofen (10 mg/kg every six hours) is also effective.

- Rest or decreased activity.
- Heat application to the painful area(s).
- If there is severe pain at any site, fever  $\geq 102^{\circ}\text{F}$ , respiratory distress, lethargy, joint swelling, or sig-

nificant abdominal pain, the child should be seen by a physician.

Therapy guidelines for initial management of *severe painful crises* are as follows (Fig. 1):

- Hydration: D5 $\frac{1}{2}$ NS at 1.5 to 2 $\times$  normal maintenance rate.

- Analgesia: Morphine 0.10 to 0.15 mg/kg IV or meperidine (Demerol) 1.5 mg/kg IV. (Morphine is preferred because of its longer duration of action and lack of adverse effects such as seizures.)

- If the patient remains comfortable for three to four hours following IV analgesia, administer an oral narcotic analgesic and observe for one to two hours.

- If the patient remains relatively comfortable, he may be discharged and the home management guidelines utilized. If severe pain returns, the patient should be admitted.

Therapy guidelines for inpatient management are:

- If the patient requires admission, IV analgesia

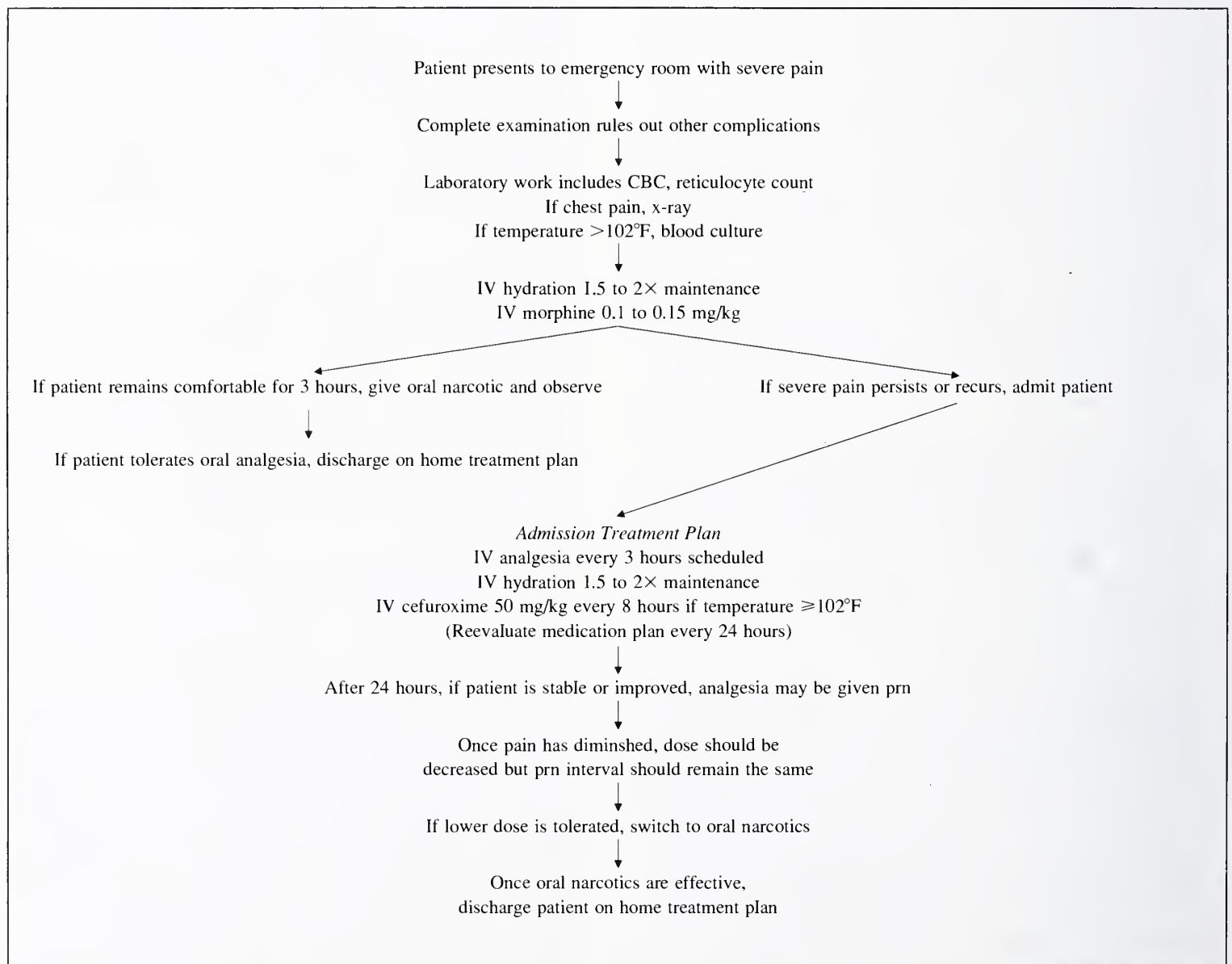


FIGURE 1. Summary of management for vaso-occlusive pain crisis.



should be given on a schedule initially to achieve better pain control and decreased patient anxiety. A common problem in management is underuse of analgesic medication. Fear of narcotic addiction is often cited as the reason for this, but the incidence of addiction in patients who receive appropriate analgesia is very low.

- Hydration: D5½NS at 1.5 to 2× normal maintenance rate.

- The medication plan should be reevaluated every 24 hours. After the first day, if the patient is stable or improved, analgesia may be switched from a schedule to a prn regimen. When the severity of pain has decreased, the dose should be tapered, but the prn interval should not change.

- When the patient is obtaining adequate relief from a substantially lower dose of parenteral narcotics ( $\leq 50\%$  of original dose), a switch to oral narcotic analgesia at an equivalent dose may be made.

- If the patient develops fever with temperature  $\geq 102^\circ\text{F}$ , blood cultures should be obtained and IV antibiotics begun.

## Cerebrovascular Accident

Stroke is a devastating complication of sickle cell disease, often leaving patients with serious neurologic impairment. Strokes affect approximately 10% of children with Hb SS.<sup>10</sup> Cerebral infarction occurs primarily in children; adolescents and adults usually experience intracranial hemorrhage. No reliable predictive factors to identify patients at risk are currently available. Presenting symptoms include hemiparesis, severe headache, dizziness, lethargy, aphasia, seizures, and change in school performance.

Diagnosis is made primarily by history and physical examination but may be enhanced by the following:

- *CT scan.* This may be normal initially; after two to four days, infarcted areas may be detected. CT scan with hyperosmolar contrast requires preparation with hydration and transfusion so as to lower Hb S to  $<30\%$ ; low-ionic strength contrast medium is preferable.

- *MRI.* This is more sensitive than CT and requires no prior transfusion or hydration.

- *Arteriography.* The use of contrast material requires the same preparation as that for CT scan with contrast.

Therapy guidelines for acute management are:

- The goal is to prevent progression of the cerebrovascular accident (CVA).

- Admission to the ICU is usually required.

- Partial exchange transfusion to decrease Hb S level below 40% if the stroke is recent ( $<24$  hours

old) may be accomplished by replacing approximately 35 to 40 cc/kg of the patient's blood with PRBC.

Therapy guidelines for chronic management are:

- If no further treatment is given, there is a 75% chance for recurrent stroke.

- A chronic transfusion program of 15 cc/kg PRBC every four weeks to maintain pretransfusion Hb S levels  $<30\%$  lowers the risk of recurrent stroke to  $<10\%$ .

- A safe time at which to discontinue transfusions has not been established. Transfusion for as long as 5 to 12 years may not be adequate to prevent CVA recurrence.<sup>11</sup>

- After approximately four years of transfusion, patients should be evaluated for complications of iron overload. Iron chelation therapy with desferrioxamine infusions should be started.

## Prevention

The management of sickle cell disease involves preventive medicine as well as treatment. Successful prevention is dependent on a well-designed, aggressive, comprehensive educational program for the patient and family. The program should emphasize the following areas.

**Diet and Nutrition.** Although no special diet is indicated for individuals with sickle cell disease, proper nutrition is an important factor in maintaining good health. Patients should adhere to a nutritious, well-balanced diet. Increased oral fluid intake is a particularly important habit for children with sickle cell disease to maintain to minimize the increased risk of intravascular sickling associated with dehydration and hyperosmolarity. Some sickle cell protocols recommend folic acid, 1 mg/day orally, to prevent folate deficiency secondary to the high rate of hb synthesis in these patients.

**Environment.** In Tennessee, changes in the weather may be dramatic and rapid. It is important for patients and families to be aware that the extremes of summer and winter weather or sudden changes in temperature may promote vaso-occlusive complications. Overheating and dehydration or cold water exposure may cause problems in the summer; excessive chilling may be a risk in the winter.

**Physical Activity.** The amount of physical activity appropriate for a child with sickle cell disease should be based on that child's previous experience. In general, children should be allowed to set their own physical limits in order to determine individual tolerance. Any activity that leads to vaso-occlusive crisis should be avoided.

**Education.** To obtain optimal compliance, it is essential for families to understand the rationale for

current medical practices. Mothers are more likely to comply with penicillin prophylaxis if they understand its purpose, and will more readily bring their febrile child to medical attention if they are aware of the risks of serious infection.

While advances in the treatment of sickle cell disease in the last decade have made a significant impact on morbidity and mortality, prevention and education may have an equally significant effect in the long run.

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# Pediatric Ankle Fractures

TODD R. WILCOX, B.S.; JOHN A. MORRIS JR., M.D.; and NEIL E. GREEN, M.D.

## Introduction

While fracture of the ankle is an injury seen commonly in patients of all ages, the treatment of this injury differs significantly depending on the age of the patient. When evaluating an ankle fracture in a skeletally immature patient, it is especially important to pay close attention to any nearby physis (growth plate), for it is involved in more than 50% of tibia fractures and in 75% of fibula fractures.<sup>1</sup> This is of cardinal importance, for unreduced physeal injuries frequently result in partial or complete growth arrest, which can subsequently cause shortening of the limb, angular deformities, and arthritis. It is therefore imperative that fractures involving the physis be managed operatively whenever closed reduction is considered less than perfect.

## Case Report

An 8-year-old white boy fell from a trampoline and twisted his right ankle four days prior to admission. He was taken immediately to his local emergency room, where radiographs demonstrated a right distal tibial fracture. The emergency room physician informed the parents that he thought the fracture needed operative reduction, so the extremity was placed in a posterior splint; the patient was instructed not to bear weight on it and was referred to Vanderbilt University Medical Center. He was seen four days after the injury complaining of pain on the medial aspect of his right ankle. Physical examination was unremarkable except for the right ankle, which was edematous and ecchymotic both medially and laterally. There was significant pain on palpation over the medial malleolus, but none over the distal fibula or lateral malleolus. The patient had normal sensation and capillary refill in the right foot, and he was able to flex and extend all toes.

Radiographs of the right ankle demonstrated a Salter-Harris Type IV fracture of the medial aspect of the distal tibia through the medial malleolus and through the physis (Fig. 1). There was also a displaced Type I fracture of the distal fibula, which had reduced spontaneously.

After discussing the options with the parents and obtaining consent, the patient was taken to the operating room for open reduction and internal fixation of the right tibia distally. The fracture was reduced without difficulty and held in place with two smooth pins while cannulated screws were inserted across the fracture. Both screws were inserted into the epiphysis without crossing the growth plate. The reduction was checked both visually and radiographically and found to be in anatomic

position with excellent alignment of the articular surface. The ankle was splinted postoperatively, and radiographs taken in the recovery room demonstrated good anatomic reduction (Fig. 2). The splint was changed to a long-leg cast on postoperative day 2, and the patient was discharged home.

The patient has been followed in our clinic and is now one year out from his injury. He is doing well, is able to participate in athletics, and has no evidence of growth arrest or angular deformity. His most recent radiographs are shown in Fig. 3.

## Discussion of Pediatric Ankle Fractures

Fracture of the distal tibia physis is the most common physeal injury in children, accounting for 38% of all physeal fractures.<sup>1</sup> This high incidence is due in



**Figure 1.** Radiograph in emergency room showing Salter-Harris Type IV fracture.

From the Division of Trauma (Dr. Morris) and the Department of Orthopedic Surgery and Rehabilitation (Mr. Wilcox and Dr. Green), Vanderbilt University School of Medicine, Nashville.



large part to the anatomy of the ankle. The natural range of motion of the ankle joint is primarily plantar-flexion and dorsiflexion; injury occurs when this joint is forced into pronation, supination, or internal or external rotation. The deltoid and lateral ligaments of the ankle insert distal to the epiphysis, and in the skeletally immature patient, are actually stronger than the epiphysis. Hence, when excessive force is applied to the ankle, the epiphysis is the most common site for failure, thereby accounting for its frequent involvement in pediatric fractures.<sup>2</sup>

## Classification

Many different systems of classification have been devised to categorize fractures of the distal tibia and fibula. Most of these systems have been designed with the orthopedic surgeon in mind and have been particularly useful in research. For purposes of initial evaluation and triage, however, no method has proven more useful, more prognostic, or more memorable than the Salter-Harris classification system. In this method, fractures are classified into one of five groups based on radiographic findings (Table 1 and Fig. 4).<sup>3,4</sup>

## Management

Type I and Type II fractures can almost always be managed with closed reduction by reversing the mechanism of injury with subsequent immobilization.



**Figure 2.** Postoperative film in recovery room after splint was applied.



**Figure 3.** Follow-up radiographs one year after injury showing good alignment with no evidence of growth arrest.



TABLE 1

## SALTER-HARRIS CLASSIFICATION SYSTEM

Type I	The fracture extends through the epiphyseal plate, resulting in displacement of the epiphysis.
Type II	The direction is similar to a Type I injury, but a triangular segment of the metaphysis is fractured and accompanies the separated epiphyseal fragment.
Type III	The fracture line extends from the joint through the epiphysis to the epiphyseal plate, and then along the plate, dislodging a segment of epiphysis.
Type IV	The fracture line passes from the joint surface, through the epiphysis, the epiphyseal plate, and the adjacent metaphysis.
Type V	The injury to the epiphyseal plate results from a crush injury.

hind the fibula and prevents anatomic reduction.<sup>2</sup> Most Type I and Type II fractures have a good outcome, but patients should, nonetheless, be followed by an orthopedic surgeon for at least one year to make sure that growth arrest does not occur. This is important because it is often impossible to ascertain the severity of physal compression that occurred with the injury.

Type III and Type IV fractures are relatively common in the pediatric age group. From a clinical standpoint, distinguishing between these two types of fractures is not a priority because both fractures are treated in a similar fashion. Indeed, in children with incomplete ossification of the malleolar region, Type IV fractures can often be misleading and appear as a Type III fracture unless oblique films are obtained.<sup>5</sup> Nonetheless, the treatment of these fractures almost always involves open reduction and internal fixation.

Several studies have demonstrated that closed reduction of a Type III or Type IV fracture is associated with a high incidence of premature growth arrest, whereas open reduction is associated with a much lower incidence of growth arrest. In a retrospective review, Kling et al<sup>6</sup> studied 28 patients with growth arrest following a Type III or Type IV fracture, and found that 85% of the patients had had a closed reduction. Kling then looked prospectively at 29 patients with a Type III or Type IV fracture. Nineteen out of the 20 who had an open reduction had no growth arrest, while five of the nine treated with closed reduction did have.

## Recommendations

Type I and Type II fractures can be managed in an outpatient setting with closed reduction and immobilization, but if the reduction is difficult, or if postreduction films do not show a perfectly aligned physis, then the patient should be referred to an orthopedic surgeon for evaluation. In addition, these patients should be followed by an orthopedic surgeon for at least a year to ensure that growth arrest does not occur.

Type III and Type IV fractures are more complex, and in general should always be referred to an or-

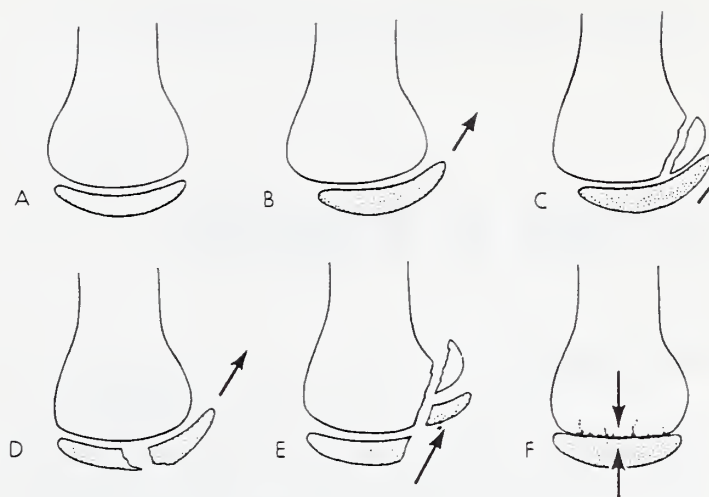


Figure 4. Salter-Harris classification system. A. Normal epiphysis. B. Type I—displacement of epiphysis only. C. Type II—displacement of epiphysis and fracture of the metaphysis. D. Type III—fracture through the epiphysis to the physis. E. Type IV—fracture through epiphysis, physis, and metaphysis. F. Type V—crush injury to physis (from Schultz RJ<sup>4</sup>).

thopedic surgeon for management. Most of these fractures require open reduction and internal fixation to ensure precise reduction and to minimize the chances of further damage to the growth plate. In addition, these patients need to be followed closely for evidence of growth arrest.

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# A Case of Polyuria

### Case Report

A 50-year-old woman was admitted to Vanderbilt University Hospital with severe shortness of breath. The patient was visiting Nashville from Texas. She had a life-long history of asthma. She had been admitted to the hospital many times for shortness of breath. She also had a history of schizophrenia, for which she had taken lithium for 20 years. The drug had been discontinued approximately two years prior to admission because of polyuria. She had a history of hypertension. Her medicines on admission were inhaled albuterol, theophylline, prednisone, captopril, fluphenazine, and clonazepam.

The patient reported the acute onset of cough, wheezing, and shortness of breath hours before admission. Physical examination in the emergency room revealed a woman in respiratory distress, with the stigmata of Cushing's syndrome. The temperature was 100.2°F orally, respiratory rate 64/min, blood pressure 156/70 mm Hg, and pulse 140/min. The patient was using her accessory muscles to breathe. On examination of the lungs, there were diffuse wheezes, with minimal air movement. Radiograph of the chest showed hyperexpanded lung fields. Blood drawn while the patient breathed 2 L/min oxygen by nasal cannula revealed a pH of 7.22,  $P_{CO_2}$  101 mm Hg, and  $P_{O_2}$  67 mm Hg. Admission electrolytes revealed a sodium of 143 mEq/L, potassium 4.9 mEq/L, chloride 99 mEq/L, carbon dioxide 35 mEq/L, glucose 115 mg/dl, and creatinine 0.8 mg/dl.

After an endotracheal tube was placed, the patient was admitted to the medical intensive care unit and treated with intravenous cefotaxime, followed later by oral ampicillin. She was given intravenous steroids, aerosolized steroids, and aerosolized bronchodilators. Sputum cultures grew *Branhamella catarrhalis*.

While the patient was in the intensive care unit, her urine output was 6 to 10 liters per day. Moreover, while the endotracheal tube was in place and the patient had no access to water, her serum sodium increased to 158 mEq/L. Her intravenous fluids were increased to match her urine output and her serum sodium decreased.

The patient's endotracheal tube was removed after three days. A water deprivation test was conducted to evaluate the patient for diabetes insipidus. At the beginning of the test, the patient weighed 115.6 lb. The serum sodium was 145 mEq/L and serum osmolality was 302 mOsm/L. The urine sodium was 29 mEq/L and osmolality 92 mOsm/L. Following six hours of water deprivation, the patient's weight had decreased to 109.8 lb. Her serum sodium rose to 154 mEq/L and osmolality to 310 mOsm/L. The urine sodium was 64 mEq/L and osmolality 153 mEq/L. The patient was then given 5 units of vasopressin subcutaneously. Two hours later, her urine osmolality had increased to 234 mEq/L.

The results of the water deprivation test were felt to be consistent with central diabetes insipidus. MRI of the head revealed no evidence of abnormality of the pituitary gland. A prolactin level was 24 ng/ml (upper limits of normal for non-pregnant women 20 ng/ml). Other tests of pituitary function were normal.

The patient was treated with intranasal desmopressin, and her urine output decreased slightly. She was instructed to keep her water intake constant and to weigh herself daily. Her other medications at discharge were theophylline, fluphenazine, clonazepam, albuterol MDI inhaler, flunisolide inhaler, amoxicillin, and prednisone.

### Discussion

Diabetes insipidus is characterized by the passage of a large volume of dilute urine due to a relative deficiency of antidiuretic hormone (ADH). Diabetes insipidus may result from an inadequate release of ADH in response to normal physiologic stimuli (central diabetes insipidus) or from a failure of the kidney to respond to ADH (nephrogenic diabetes insipidus). Head trauma and hypoxic encephalopathy are the most common known causes of central diabetes insipidus (CDI)<sup>1</sup>; though many cases are idiopathic, the most common causes of nephrogenic diabetes insipidus (NDI) are lithium, hypercalcemia, hypokalemia, and the osmotic diuresis associated with uncontrolled diabetes mellitus or high protein tube feedings.<sup>1</sup>

The diagnosis of diabetes insipidus is based on the water deprivation test,<sup>2</sup> which measures the relationship between the plasma osmolality and ADH activity (as reflected by the urine osmolality). The test is started by weighing the patient and then withholding food, fluid, and cigarettes. Urine is collected hourly for the measurement of urine volume, specific gravity, and urine osmolality. Serum osmolality and sodium are measured and the patient weighed every two hours. The test is discontinued when the serum osmolality exceeds 295 mOsm/L, the serum sodium exceeds 150 mEq/L, the urine osmolality reaches a plateau, or the body weight decreases by 5%.

Whereas normal subjects concentrate their urine to 900 mOsm/L or more,<sup>2</sup> patients with complete diabetes insipidus cannot concentrate their urine. Patients with partial diabetes insipidus or primary polydipsia partially dilute their urine.

During the second phase of the water deprivation test, patients are given subcutaneous vasopressin. This is done to distinguish between CDI and NDI and between partial diabetes insipidus and primary polydipsia. Patients with CDI respond to vasopressin, whereas those with NDI or primary polydipsia do not.

The treatment of CDI is the administration of exogenous ADH or its analogues, DDAVP (desmopressin), a two amino acid substitute of arginine vasopressin, being the most commonly used because of its ease

Prepared by Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.



of administration. Drugs that potentiate the effects of ADH, such as chlorpropamide, may be used to treat partial CDI.

Most NDI is reversible. Diuretics and a low-sodium, low-protein diet may be used to treat NDI. Diuretics are used to deplete the effective circulating volume, and therefore the amount of water delivered to the collecting

tubule. A low-sodium, low-protein diet decreases the urine output by decreasing rate of solute excretion.

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## ANCA-Positive Glomerulonephritis

### Case Report

A 60-year-old white man with a three-year history of type II diabetes mellitus presented himself to the Veterans Affairs Medical Center in Nashville with a progressive systemic illness. Two months earlier while on a trip to Colorado he developed arthralgia that started in the right shoulder and then progressed to the left shoulder, knees, wrists, and interphalangeal joints bilaterally. This was associated with a low-grade fever, malaise, fatigue, chills, night sweats, rhinorrhea, and a sore throat. He denied insect bites, joint effusions, or rash at this time. He treated himself with six to eight aspirins daily without relief. Two weeks after onset, he noticed two small ulcers under his lower dentures.

After four weeks, he returned to his home in North Carolina, where an infection was thought to be the cause of his problems. Ibuprofen 1,800 mg/day, a ten-day course of ciprofloxacin, and a seven-day course of erythromycin produced no improvement. His symptoms continued to worsen gradually, and eventually incapacitated him. While visiting in Chattanooga, he was seen in the outpatient clinic of the Veterans Affairs Medical Center and was referred for admission to the VA in Nashville.

Upon arrival, the patient had lost 30 lb in weight, and had photophobia, mild nausea, and some vomiting in addition to his above complaints. Physical examination revealed a very sick man with a temperature of 98°F, pulse 98/min, respirations 22/min, and blood pressure 160/90 mm Hg. He had bilateral subconjunctival hemorrhages, photophobia, and a small ulcer of the lower gum. The neck was supple and there was no adenopathy. His lungs were clear. Cardiac examination revealed a 1/6 systolic murmur at the left lower sternal border. There was no costovertebral angle tenderness. The liver measured 12 cm by percussion, and the tip of the spleen was palpable. Rectal examination was negative, and there was no blood in the stool. Muscles were not tender. Examination of the joints revealed effusions and pain with movement of the wrists, elbows, shoulders, knees, and interphalangeal joints, but there was full range of motion in all joints. There were no skin lesions, and the neurologic examination was normal. The WBC count was 13,000/cu mm (87% segmented neutrophils, 4% lymphocytes, and 7% monocytes) and the hematocrit was 23.5%. His creatinine was 4.3 mg/dl, BUN 40 mg/dl, serum albumin 2.7 gm/dl, total bilirubin 1.6 mg/dl, and Westergren

sedimentation rate 125 mm/hr. A urinalysis revealed dysmorphic red blood cells, numerous granular casts, and proteinuria. Chest radiograph and electrocardiogram were within normal limits.

The patient was given 80 mg of prednisone for a presumed systemic vasculitis. Within four hours, there was marked improvement of his arthralgia and malaise. Serum RPR, C3, C4, CH50, rheumatoid factor, ANA, cryoglobulins, and hepatitis profile were all within normal limits, but the antineutrophil cytoplasmic autoantibody (ANCA) was positive and stained in a cytoplasmic pattern, consistent with the diagnosis of either polyarteritis nodosa or Wegener's granulomatosis. A renal biopsy showed a severe crescentic necrotizing glomerulonephritis with accompanying interstitial infiltrates which was highly suggestive of Wegener's granulomatosis. He was given cyclophosphamide 500 mg IV *stat* dose, followed by 150 mg orally every day, and continued on prednisone 20 mg orally three times a day. Unfortunately, his kidneys did not respond to this treatment, and plasmapheresis was initiated in the hope that renal deterioration could be prevented. This was not successful, and his creatinine rose to 7.3 mg/dl. He was discharged from the hospital with minimal symptoms after two weeks of therapy; cyclophosphamide and prednisone were continued, and he is currently doing well but requires hemodialysis.

### Discussion

Antineutrophil cytoplasmic antibodies (ANCA) are associated with a spectrum of human autoimmune disease ranging from glomerulonephritis to systemic vasculitis. Included in this grouping are Wegener's granulomatosis, polyarteritis nodosa, some pulmonary-renal syndromes, and idiopathic necrotizing and crescentic glomerulonephritis. Some patients in this spectrum do not fit neatly into any one of these disease entities, but have characteristics of more than one. Tissue pathology reveals noticeably little immune deposition, distinguishing these diseases from immune complex glomerulonephritis and anti-GBM disease.

Many patients with ANCA-associated disease report a flu-like prodromal illness that may "prime" neutrophils and monocytes for antibody attack of their

Prepared by Robert A. Crowder Jr., M.D., medical resident, Vanderbilt University Hospital, Nashville, and Mark Kaplan, M.D., chief medical resident, Nashville Veterans Affairs Medical Center.

(Continued on page 223)



# Radiology Case of the Month

S. TODD ROTH, M.D. and ROBERT E. LASTER JR., M.D.

## Case Report

A 40-year-old woman arrived in the emergency room complaining of severe abdominal pain and abdominal distention; several episodes of diarrhea on the day of admission were followed by the onset of left lower quadrant pain. Physical examination showed the abdomen to be moderately distended, with hyperactive bowel sounds and a small, tender mass palpable in the left lower quadrant. A CT examination of the abdomen and pelvis was performed. After considering the history and examining the CT image in Fig. 1, choose the most likely diagnosis:

- (1) Small bowel obstruction due to an intussusception
- (2) Crohn's disease of the small bowel
- (3) Small bowel obstruction due to an incarcerated Spigelian hernia
- (4) Small bowel obstruction due to a small bowel tumor

## Discussion

The axial CT image in Fig. 1 was obtained through the upper pelvis. The CT image shows multiple loops of dilated, fluid-filled small bowel representing a small bowel obstruction. A small loop of small bowel, seen herniating through the anterior abdominal muscles in the left lower quadrant, is in the same location as the palpable left lower quadrant mass. At surgery approximately 3 cm of small bowel was found to have herniated through the abdominal musculature and had become incarcerated, causing small bowel obstruction. The findings at surgery and demonstrated by CT are typical of a Spigelian hernia causing a small bowel obstruction.

Spigelian hernia is an uncommon anterior abdominal wall hernia that occurs spontaneously along the lateral margin of the rectus abdominis muscle. The hernia usually occurs slightly below the umbilicus and may be found on either side with equal frequency. Spigelian hernias account for less than 2% of abdominal wall hernias.<sup>1</sup> This hernia, first described in 1721, is associated with a high incidence of strangulation and incarceration due to the small size of the abdominal wall defect.<sup>2</sup> The Spigelian or semilunar line represents the vertical fibrous band formed by the union of the rectus sheath with the fascias of the three lateral flat muscles of the anterior abdominal wall.<sup>3</sup> The aponeurosis of the internal oblique muscle divides into two separate layers enclosing the rectus sheath throughout the upper two-thirds of the anterior abdominal wall. The transversus abdominis aponeurosis is posterior and the external oblique aponeurosis anterior to the rectus muscle. At the lower one-third, the internal oblique aponeurosis does not divide and continues as a single layer covering only the anterior aspect of the rectus muscle. This abrupt change in the fascial layers at the junction of the upper



**Figure 1.** The external oblique fascia is seen anterior to the portion of herniated small bowel (symbol #1). Multiple loops of dilated small bowel are present. The small bowel is herniating through a defect in the internal oblique and transversalis fasciae.

two-thirds and lower one-third of the anterior abdominal wall is the most common site for Spigelian hernias. At this level the deep layer of the anterior abdominal wall is only weakly reinforced by the alternating bands of transversalis and internal oblique fascial layers. This creates potential defects through which hernias can develop. The anterior superficial layer of the abdominal wall remains firmly reinforced by the external oblique muscle. The hernia sac is not situated just under the skin but remains beneath the external oblique fascia.<sup>3</sup>

Spigelian hernias are difficult to diagnose clinically because of their rarity, insidious onset, nonspecific symptoms, and subtle physical findings.<sup>4</sup> The hernia may contain omentum, small bowel, and/or colon. The clinical presentation is variable, depending on the contents of the hernia sac. Clinical symptoms usually range from mild or intermittent lower abdominal pain to acute symptoms of intestinal obstruction and incarceration.<sup>5</sup> An ill-defined, soft, palpable, and mildly tender mass is occasionally detectable on physical examination.

CT can be an excellent diagnostic tool in cases of suspected Spigelian hernia because of its ability as demonstrated in this case to demonstrate the classic anatomic features, contents, and exact location of the hernia.

**ANSWER:** (3) Small bowel obstruction due to an incarcerated Spigelian hernia.

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From the Department of Radiology, Methodist Hospital, Memphis.



# Physician's Responsibility for Death Certificates

PAULA TAYLOR

Signing a death certificate and determining the cause of death are responsibilities of every physician for any patient he has attended for an illness or condition that resulted in death. The physician should complete the medical certification portion of the death certificate as soon as the partially completed form is received from the funeral director and within the legally established period of 48 hours. Specifically, the physician needs to:

- Verify the decedent's name and date of death,
- Complete the certification including signature, license number, and date using permanent black ink,
- Complete the cause of death section with his best medical opinion using a typewriter or permanent black ink,
- Be familiar with state requirements concerning deaths that should be reported to the medical examiner, and
- Return the completed certificate to the funeral director so that it can be filed with the county health department within five days after death.

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From the Tennessee Department of Health, Nashville. Ms. Taylor is the state registrar and director of the Department's Office of Vital Records.

When a physician postpones this responsibility, the family is seriously hindered and possibly even prevented from dealing with their duties surrounding the death. Without a properly completed death certificate, the affairs of a decedent cannot be closed. Claims for insurance or government benefits, bank account transactions, and property transfers require a certified copy of a death certificate.

If a physician is not able to determine the cause of death for the purpose of completing the death certificate within 48 hours, a certificate may be signed and submitted with the cause of death listed as "pending." In these cases, the Tennessee Office of Vital Records will mail the physician a form entitled "Delayed Report of Diagnosis." This form allows the doctor to provide the complete and accurate cause of death when additional information is gained from the autopsy findings or other studies.

Physicians who have questions concerning their responsibilities in death certification may contact the death registration staff of the Office of Vital Records at (800) 547-3558 or the local registrar in their county health department.



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## Vanderbilt Morning Report . . .

(Continued from page 221)

cytoplasmic contents. This may lead to cell death with release of lytic enzymes and subsequent vasculitis.

The two types of ANCA are C-ANCA and P-ANCA, distinguished by their cytoplasmic and perinuclear staining patterns. P-ANCA is more frequently associated with renal-limited disease and polyarteritis nodosa, and C-ANCA is more often associated with Wegener's granulomatosis, though there is considerable overlap.<sup>1</sup>

Immunosuppressants such as corticosteroids and cyclophosphamide are used in the treatment of all cases of ANCA-associated vasculitis and glomerulonephritis.

Prompt aggressive therapy may be quite effective, with one recent series showing a 75% two-year survival.<sup>2</sup> Prior to immunosuppressive therapy, two-year survival in Wegener's granulomatosis was less than 10%.<sup>3</sup>



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# Ongoing Supervision of Staff—A Necessity

J. KELLEY AVERY, M.D.

### Case Report

A 58-year-old woman had a modified radical right mastectomy eight years before because of breast cancer. She had been treated according to the standard protocol, and following the surgery had chemotherapy and radiation. The patient had done so well postoperatively that after the five years of careful follow-up, her physician elected to see her annually.

At the eight-year annual checkup, the patient complained of a rather severe pain in the upper back and chest which had begun only two or three weeks before. A physical examination did not reveal any significant abnormality. The mastectomy scar was examined thoroughly and a chest x-ray showed no evidence of lung pathology. Some symptomatic treatment was prescribed, and the patient was asked to return within a month if the pain continued.

The patient's pain became worse, and she did not wait a month to return, but returned to her primary care physician within two weeks. At that point the patient was sent to the operating surgeon for further evaluation.

Again, the physical examination showed no significant findings. The examination included a very thorough evaluation of the chest wall and axilla. Again, a routine chest x-ray was unremarkable. Because the patient's pain had gotten worse in the two weeks that intervened between her visit to her primary care physician and the appointment with her surgeon, a CT scan and a bone scan were ordered. Both showed evidence of metastatic disease in the upper thoracic spine and the right clavicle.

The patient was having no neurologic symptoms except for the local pain. It was elected to treat her with chemotherapy initially, to be followed by radiation. She had a course of chemotherapy to which she responded clinically with a marked reduction in pain, and the radiation therapy was to follow at an appropriate time after the completion of chemotherapy.

The lesions were evaluated and the radiation protocol was established. The patient was to return at stated intervals until she had completed the radiation protocol. She completed the treatments in the scheduled amount of time.

Three weeks after completing the therapy she began to complain of some numbness and weakness in her lower extremities. This rapidly progressed to involve the upper extremities, and she soon became a quadriplegic with only minimal function of the upper extremities; a diagnosis of transverse myelitis secondary to radiation was made.

### Loss Prevention Comments

In reviewing the entire protocol for treatment, it was found that shielding had been inappropriate in the actual

delivery of radiation to the prescribed sites on this patient's body. The inappropriate shielding had been used with every treatment and was believed by all involved in the case, including the attending physician, to be the cause of the patient's disease. A six-figure settlement was negotiated.

Catastrophes of this type do not occur often, but they do occur and when they do they most often are due to a tragic mistake. There have been cases where the programming of the therapy unit has been at fault, and even though the appropriate dosage had been entered into the machine, due to the programming error inherent in the computer of the unit, the patient received much more radiation than had been intended. This did not appear to be the problem in this case.

There have been cases where the supervision of the technical people involved with actually delivering the treatment has been at fault. Instructions that were less than precise and the failure to monitor what the technician was doing with each treatment has been faulty. This was probably the error in this case.

Calibration of the machine has been a problem in some previous cases, but in this case that was not suspected.

Here we have a situation where everybody involved admitted that inappropriate shielding had been used. The reason was not that there was a lack of awareness of the type of shielding that was appropriate, but simply that those responsible for setting up for the treatments did not attend to their responsibilities adequately.

You may say that this kind of tragic error will occur despite all our efforts to prevent them. Perhaps that is true. However, if this happens to one of your patients, the pain of high malpractice insurance premiums will be the least pain you will endure. The much greater pain will be the memory of the damaged patient.

Had this case gone to the jury, it was feared that the degree of negligence perceived by them, which was a part of the charges, might have led to the awarding of punitive damages.

To repeat, when one is involved in delivering this type of therapy, there simply must be a precise calibration of the machine to be used, the appropriate programming of the prescribed dosage and time into the unit, and the close supervision of technical people. The last of those appears to have produced this very tragic injury.

Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.



# Canadian System Becomes U.S. Bone of Contention

ROBERT BOWERS, M.D., *Chairman*

TMA Communications and Public Service Committee

As the presidential race gains momentum, the health care crisis is evolving into a political battleground. Many candidates are campaigning for a Canadian-style health system, while others assert that it is not the solution to our problem in the United States.

According to the American Medical Association's "Study of the Canadian Health Care System," proponents of the Canadian system say it is a viable alternative, saying that it offers a comprehensive program of primary care while removing financial barriers, decentralizes health programs, and offers standards of care equal to or better than those of most Western countries. When presented in this way, it's no surprise that the system looks very attractive to many Americans.

But the report warns health care providers and patients to be aware of the pitfalls of this type of system before they head to the polls. The AMA agrees that, in theory, Canadians have an ideal health care system, but AMA officials and many other health care professionals say that when put into practice, the Canadian system lacks a great deal in comparison with the current U.S. system. According to the report, the Canadian system is, among other things, "less responsive to consumers than the U.S. system . . . rigid and inflexible . . . and appears to be poorly suited to postindustrial societies with changing human service needs."

It is up to us as physicians to help set the record straight about the myths, and the CARE program is certainly attempting to do that through its Media Relations and Patient Relations programs. Here are some points you need to discuss with your patients when they ask about the Canadian system and how it compares to ours:

- The Canadian system is supposed to offer free medical care to all citizens. But most Canadians still must cover themselves with some form of private, supplemental insurance, because in reality not every medical need is covered.

- The Canadian government is now facing the demands placed on "free" health care and has turned to capping total health care spending. And because the system is "free," and there is no competition between physicians, there is no incentive for excellent performance or reprimand for inferior practice.

- There is also every indication that the quality of care within a Canadian-style system suffers. In Canada, hospital budgeting often leads to a denial of care and some hospitals have resorted to closing during part of the year or limiting the number of operations they perform in order to control costs.

- As a result of erratic hospital schedules, thousands of Canadians who are at serious medical risk or just tired of waiting for their procedures come to the United States seeking timely medical care.


- Medical technology in Canada in many instances lags far behind advances in the United States, meaning a substandard level of care that would be unacceptable to most Americans.

In addition to arguing for a Canadian system based on its supposed advantages, proponents of the system often hail it as cost-effective and economically beneficial to the American deficit. But some experts believe otherwise, and question the validity of comparing economic indicators of the two countries as evidence.

For instance, last year Canada suffered a larger federal deficit per capita than did the United States, most notably as a result of the expense of its free health care system. Furthermore, a recent study by Edward Neuschler, director of Policy Studies at the Health Insurance Association of America, maintains that "this simplistic comparison of relative health spending as a percentage of GNP is grossly misleading." The study also asserts that the rudimentary conclusions—that the Canadian system would lower total costs and administrative expenses—drawn from that comparison are invalid.

Estimates of the cost-savings realized in the Canadian system fail to consider the demands Americans would place on such a system, such as requiring full coverage for services that are now only partially covered in Canada.

Funding such a system would require either higher income taxes, a new national sales tax, or an increase in payroll taxes. In the wake of failed "no new taxes" promises, many Americans would probably rather consider alternatives to the Canadian system.

While the Canadian system is not necessarily a bad one for health care, it just isn't the panacea that American citizens and many politicians would like it to be. 



# A#



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# Dizzy Medical Writing: Will It Never End?

HERBERT L. FRED, M.D. and PATRICIA ROBIE

Eight years ago we published the first in a series of articles on dizzy medical writing.<sup>1-4</sup> We had hoped that by drawing attention to such lexical litter we might somehow reduce its frequency and extent. So far, we've failed, but we haven't given up the cause.

Presented here are the most recent winners of the "Dizzy Awards." These awards honor the late, great Dizzy Dean and are given for excellence in bewildering, unintentionally comical, or downright terrible medical writing.\*

## **The Extra Innings Award (a tie)**

"The epicardium, cardiac valves, and endocardium appeared normal. The epicardium, cardiac valves and endocardium appeared normal."

—But what about the epicardium, cardiac valves, and endocardium?

"... and iodide-induced thyrotoxicosis has been recognized since 1820 by the French physician Coindet."

—Amazing! After 171 years he can still see!

## **The Placed on the Disabled List Award**

"A 79-year-old, non-insulin-dependent diabetic woman presented with severe pain in the rectum and urgency."

—How does pain in the urgency present?

## **The Caught Out of Position Award (a tie)**

"The next study was performed by our group at the University of Southern California, which was published in 1977."

—How do you publish a university?

"Livido is a term first used to describe a violet discoloration of the skin due to a local circulatory disturbance in the 1860s."

—There's also a disturbance in the syntax of that sentence in the 1990s.

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From the HCA Center for Health Excellence and *Houston Medicine*.

Reprint requests to *Houston Medicine*, 7600 Fannin, Houston, TX 77054 (Dr. Fred).

\*A list of the articles containing the winning excerpts is available upon request.

## **The Screwball Award**

"This case points out the continued importance of performing and culturing unusual skin lesions in patients with AIDS."

—How does one perform a skin lesion?

## **The Touch Every Base Award**

"The proposal that cobalt-induced lung disease might thus at least partly result from 'transitional metal overload' leading to oxygen free radical tissue injury, does not appear to have been hitherto envisaged, and such a mechanism is admittedly still speculative, but this hypothesis merits further experimental investigation."

—Perhaps you'd like to qualify that statement?

## **The Wrong Pitch Award**

"A promising prophylaxis for general surgery, although not yet confirmed, is very low-dose warfarin at 1 mg daily started 3 weeks before elective surgery."

—Good health would work better.

## **The Scorecard Award**

"There were also significant differences between the average extension of the pleural lesions in the following groups: cases with glucose lower/higher than 50 mg/dl ( $p < 0.01$ ); pH lower/higher than 7.30 ( $p < 0.0003$ ); pH lower/higher than 7.35 ( $p < 0.0002$ ); glucose  $< 60$  mg/dl plus pH  $< 7.30$ /glucose  $> 60$  mg/dl plus pH  $> 7.30$  ( $p < 0.002$ ); and glucose  $< 60$  mg/dl plus pH  $< 7.35$ /glucose  $> 60$  mg/dl plus pH  $> 7.35$  ( $p < 0.002$ )."

—That figures, more or less.

## **The Bag of Soda Pop and Cup of Popcorn Award (a tie)**

"In contrast to the Framingham study data, we detected no clustering of thromboembolic complications."

—"We" and "data" always contrast with one another.

"There were notable deviations in performance and interpretation between the nephrologists and the standard urinalysis."

—Obviously. Urinalyses, standard or otherwise, can't perform or interpret.

### The New Pitch Award

"The level of suspicion for the involvement of *B. fragilis* in septic arthritis ordinarily is quite low, yet it accounted for 26 (8.6%) of 302 cases of anaerobic joint infection reported in the literature."

—Is level-of-suspicion-induced arthritis a newly recognized entity?

### The Switch Hitter Award (a tie)

"At referral, ENT examination revealed marked nasopharyngeal and posterior oropharyngeal lymphoid hypertrophy causing complete postnasal obstruction was observed."

—We refer patients, not ENT examinations.

"... the pulmonary function studies of our patients revealed a restrictive pattern, and they had only a few complaints despite widespread radiographic changes."

—Our pulmonary function studies never complain.

### The Balk Award

"A literature review by Arenberg and McCreary (1971), produced eleven reported cases to which he added three new ones."

—Which he is they?

### The No Hits, No Runs, One Error Award (a three-way tie)

"Although they have been well described, the contribution of occupational factors is often overlooked. ..."

—They is?

"The prevalence of these signs are sufficiently low. ..."

—It are?

"Keeping facilities, clothing, and equipment clean are important. ..."

—Is you certain?

### The Caught Napping Award (a three-way tie)

"Human cysticercosis is almost caused by *Cysticercus cellulosae*."

—What else almost causes it?

"Patients who continued to have positive blood culture results while receiving appropriate antibiotic therapy had a poor diagnosis."

—The best therapy for a poor diagnosis is appropriate editing.

"The conclusions reached probably depend in part on criteria chose for defining a positive result."

—You chose chose instead of choosing chosen?

### The Wild Pitch Award

"The etiology of idiopathic hoarseness is multifactorial. ..."

—You must know something we don't know.

### The Make-Up Game Award (a three-way tie)

"The benefits of pancreatic resection and necrosectomy still require full evaluation."

—Necrosectomy?

"In this patient, coronary angiography revealed a large, central cavern fistulating into the left atrium. ..."

—"Fistulating" isn't in our dictionary.

"A 62-year-old man developed a fistula between the right ventricle and the stomach after Thal fundic patching of an emetogenic rupture of the esophagus."

—That emetogenic rupture of our language needs patching, too.

### The Pop-Up Award

"The patient reported feeling a 'pop' in his right face while he was eating."

—Well, it's better to have a right face than a wrong face, a left face, or an about face.

### The Collision at Home Plate Award

"Urinalysis was grossly bloody with erythrocytes too numerous to count."

—What caused the urinalysis to bleed?

### The Wrong Ball Park Award (a four-way tie)

"In the latter article, the lesions initially appeared as erythematous papulopustules similar to 'swimming pool folliculitis,' but then became bullous and necrotic."

—It's enough for articles to have bad grammar, much less erythematous papulopustules.

"A case of neurofibromatosis is reported in a patient. ..."

—We report our cases in medical journals, never in patients.

"Systemic mycotic aneurysms and rare pulmonary mycotic aneurysms in intravenous drug abusers have been reported in intravenous drug abusers."

—Sam, have you read today's *Intravenous Drug Abuser*?

"The highest incidence of remote neuromuscular disorders in cancer has previously been reported in lung carcinoma."

—Reports in lung carcinoma are harder to read than those in medical journals.



### The Broken Bat Award

"Although the patient's initial presentation is consistent with psoas abscess, *Streptococcus pneumoniae* is rarely described as a pathogen."

—Please check the line, operator. We have a bad connection.

### The Cases at the Bat Award (a tie)

"... only three of nine cases were sufficiently ill to miss work, none were hospitalized, and two untreated case-patients were asymptomatic."

—When our "cases" are too ill to work, our patients work for them.

"Although more case-patients than noncase patients reported a rural residence and outdoor activities. . . ."

—Casing patients is risky.

### The Bad Bounce Award

"Only three cases of CMV pneumonitis presenting with the clinical syndrome of hypoxemia and infiltrates on x-ray film with lung biopsy or autopsy confirmation of CMV cytopathic effect in the absence of other pathogens have been reported, to our knowledge."

—Boy, that road was bumpy!

### The Batted Out of Order Award (a tie)

"There is ample evidence that bacteraemia occurs after certain forms of dental treatment, defined as extraction, scaling, and surgery including the gingival tissue by the working party of the British Society for Antimicrobial Chemotherapy."

—One more time, please.

"A patient with the acquired immunodeficiency syndrome (AIDS) developed severe cyanosis after bronchoscopy (oxygen saturation 34%) from methaemoglobinaemia."

—Bronchoscopy from methaemoglobinaemia is a serious problem.

### The Flag Pole Award (a tie)

"Only surgery offers a reasonable chance of cure for most diseases."

—Ah, cut it out.

"Cryptococcosis is unique among opportunistic fungal infections because it is the only disease that can occur in normal individuals."

—Balderdash!

### The Hall of Shame Award

"As an outpatient 1 month later the blood pressure was 170/100 mm Hg. . . ."

—Was the blood pressure male or female?

### The Word Series Award (a tie)

"Because pleural effusions of unknown origin are frequently caused by malignant tumor, especially bronchogenic carcinoma, fiberoptic bronchoscopy is of value in the diagnostic work-up of a pleural effusion of unknown origin and should be performed early to make a diagnosis of malignancy or other entities, particularly in those patients who have hemoptysis or concurrent pulmonary lesions, such as pulmonary collapse, mass, and consolidation, on their chest x-ray films."

—I think we're lost.

"As measurements of coronary reserve after pharmacologic stimulation are impractical for most catheterization laboratories, I believe it is reasonable to conclude that patients with an ischemic electrocardiographic response to exercise, coupled with a limited (less than 5% increase) left ventricular ejection fraction response to exercise, or fall in ejection fraction (to exclude the 'false-positive' electrocardiographic responses to stress), should be suspected of having a cardiac basis for their chest pain syndrome."

—Is that all you've got to say?

### The Blooper Award

"This report is compromised of three unusual patients."

—And that sentence is composed of one misuse of "comprise."

### The Called on Account of Darkness Award

"We believe, however, that this approach to examining data on high cholesterol concentrations may be of value in highlighting not only points of qualitative uncertainty, such as local prevalences of high cholesterol concentrations and the mortality associated with a given concentration but also, more importantly, points of qualitative uncertainty, such as the long term benefits and risks of treatment that lowers cholesterol concentration and what these are in groups not studied in trials—that is, women and certain age and ethnic groups."

—It's been a long day.

### The Out in Left Field Award

"The clinical and pathological findings of five adult cases of idiopathic nonsyndromatic paucity of interlobular bile ducts are reported."

—You said a mouthful, doc.

### The Questionable Call Award

"In view of the danger of heparin-induced cardiac tamponade, hemodialysis should not be performed with caution in patients with SLE who have severe, active systemic vasculitis and pericarditis."

—Why not?

### The Who's on First, What's on Second Award

"On admission, we were unable to obtain either pulse or blood pressure."

—What hospital were you admitted to?

### The Full Count Award

"It is likely that this reflected the close correlational relationships between clinical and biopsy variables, the strong clinical models generated, and the inclusion in the clinical models of the previously neglected clinical variables, duration of renal disease before biopsy and the presence of vasculitis or comorbid disease."

—Are you sure?

### The Peanuts and Cracker Jack Award

"It is possible that the observation of enhanced gastric emptying rates for meals with exercise has clinical application."

—Is the same true for meals with the King of Siam?

### The Inserted Into the Lineup Award

"The pathologic process of sacroiliac joint inflammation is poorly understood due to the limited number of direct of studies of this joint."

—That sentence is also poorly understood.

### The Mix-Up in the Outfield Award

"It appears at present that pathologic changes of sacroiliitis cannot be reorganized at an earlier stage with the use of MRI than with conventional radiography or CT."

—Haven't you recognized that your sentence should be reorganized?

### The Removed From the Lineup Award

"Catheter function was preserved in all patients who were completely lysed."

—Isn't it against the law to lyse patients?

### The Swing and a Miss Award

"When a woman is diabetic her husband is less likely to eat the same food as her."

—What does her eat?

### The Week Hitter Award

"Cultured material from the previous week revealed coagulase-negative *Staphylococcus aureus*. . ."

—What part of the week did you culture?

### The Batty Title Award (a six-way tie)

"Cerebrospinal Fluid in the Rhinitis Clinic."

—Watch out. The floor is slippery.

"Primary and Secondary Hypothyroidism in Nasopharyngeal Carcinoma."

—Did the carcinoma have dry skin, fatigue, and puffy face?

"Thyroid Deficiency in the Framingham Study."

—We are skeptical of any study done by cretins.

"Motor Vehicle Driving Among Diabetics Taking Insulin and Non-diabetics."

—Careful, that's a car full.

"Predictive Factors for Bactibilia in Acute Cholecystitis."

—We predict there's no such thing as bactibilia.

"Idiopathic Biliary Ductopenia in Adults: A Report of Five Cases."

—Is that the opposite of idiopathic biliary ductocytosis?

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CHARLES ED ALLEN

### *Add Just One*

The Tennessee Medical Association Board of Trustees has recently established a committee on membership. Outstanding physicians from across our state have accepted appointment to the committee. I am convinced that to meet the many challenges facing our profession we must markedly increase membership.

Numbers mean strength. Individual effort by each of us is extremely effective. United, we exponentially increase that strength.

How sad that some of our most serious problems are in the political arena. When TMA can speak for all Tennessee physicians, our collective voice will be heard. When our voice blends with those of all other state associations, through the American Medical Association, even the most radical of Washington functionaries will listen.

Of approximately 9,300 practicing physicians in Tennessee, 2,700 have not joined TMA. Even some of our own TMA constituents are not affiliated with the American Medical Association.

I encourage, even implore, every TMA member to recruit at least one new physician. (So what if someone is contacted three times—so much the better.) To those of our TMA family who are not AMA members, your commitment to our national organization is needed now as never before. Let each of us carry his or her own share of the load. In this time of crisis, no one else can do it for you.

*Charles E. Allen, M.D.*

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MAY, 1992

which is to have some vision as to where it is you are heading, and maybe even before that, granted you want to change, as to where it is you want to be once you get there. One wants to avoid the situation of changing just to be changing, especially where nobody is in charge for a while, which is what seems to happen all too often.

Cataclysmic change is never restful, often messy, and seldom desirable—unless of course there is no alternative, such as when an autocratic regime, particularly one that is at the same time oppressive, needs eliminating. That (eliminating, or at least trying to eliminate, autocratic regimes that need eliminating) can happen not only in governments at any level; it can happen in medical politics, too, and it has. (It can, of all things, happen even in church politics, of whatever creed, though members like to keep such things dark. But I digress.) Organized medicine, or at least the parts of it that I am familiar with, which, considering the length of its tentacles, is probably not very much, seems to me to be about average, generally speaking.

Though organized medicine in Tennessee has not been entirely without its ups and downs, it has mercifully been spared any major rents in its fabric, or at least so far as I am aware, and I have been more or less intimately involved in, or at least knowledgeable about, what has gone on since I became editor of the *Journal* in 1972. I don't count undercurrents that never surfaced, some of which I know about, and others that I'm certain were there that I don't know about. But in those 20 years, at least, the ship has managed to sail along on an even keel without any tempests, except maybe an occasional one in a teapot.

The bigger an organization is, the more it depends on its staff. Small ones turn to their secretary, who really runs things; presidents come and go—and the best ones are those that when their time comes to go, go; the secretary provides continuity. Continuity in TMA is provided by committee chairmen, who nearly always are semi-permanent fixtures, and by staff, who are permanent, within limits; the committee chairmen, since they also practice medicine, depend on their assigned staff to keep things running smoothly. The one who keeps the staff running, one hopes smoothly, so that they can keep the committee structure running, again one hopes smoothly, is, in the case of the TMA, the executive director. Other organizations have different names for the office, but it is the same thing.

Though you get used to it after a while, it sort of, and, if you aren't careful, sorely, wounds the ego the first time you find out that there are those among your constituency who not only don't know you rep-

## editorials

### The Old Order Changeth— Sort of

There are those who will tell you that unless you are going forward you are really going backward; there is no such thing, they would maintain, as the status quo. I can see their point, but whether or not such bustling about translates into progress depends on several variables, one of the most pertinent of



resent them as their president, but don't even know you exist. I speak on that from experience on both the giving and receiving end. During my first 15 or so years as a member of the Nashville Academy of Medicine, the TMA, and the AMA, there were times I couldn't have told you who the president of any of those organizations was, and there was probably no time at all when I could have named all three of them. Unless one gets involved in it, one may be scarcely aware that organized medicine exists except as he sees it referred to in the media, usually in an uncomplimentary fashion, and when he grudgingly pays his dues.

If you really hanker after anonymity, though, be staff. I wouldn't care to guess how many of the membership of TMA could not name even one staff member. Those of us who have been privileged to work with our staff, though, know how much we depend on them, and even more to the point, how much we *can* depend on them. That is due in large measure to the individual where the buck stops, whose job it is to find other staff on whom we can depend.

As I indicated earlier, I was a late bloomer, but in the nearly 25 years that I have been working in the TMA there have been only two executive directors. I have on a number of previous occasions in these pages expressed my admiration for and gratitude to Jack Ballentine and Hadley Williams. Now, by action of the Board of Trustees in January, in which Mr. Williams was named chief executive officer of the Association, which includes oversight of the thriving TMA Physician Services, we have a third. Don Alexander, who has for several years been associate executive director, has taken over the Association's day-to-day operation. I would have mentioned it sooner, but I hesitated to upstage President Salyer, who announced it in his President's Page last month. Actually, the *TMA Chart*, which does not suffer from the *Journal's* long lead time, told you first, way back in February.

Don Alexander came on board in 1973, not long after I became editor of the *Journal*. When Mr. Williams became executive director on the retirement of Mr. Ballentine in 1976, Mr. Alexander moved up to assistant director, and became the one the editor pestered with things he didn't need to pester the executive director with. With the retirement of Jim Ingram as director of continuing medical education, Don took over the staffing of that committee, and it was in that position that I worked most closely with him.

Don Alexander follows in the pattern that has worked so well for TMA in the past: find a good man, groom him for the job, and when the time comes, give it to him. It is a process of evolution

rather than revolution, an alternative in which there really might be nobody in charge for a while.

I can tell you from firsthand experience that the Association could not possibly be in better hands. I congratulate Don, and wish him well. I also congratulate the Board on its wisdom. Most of all, I congratulate the Association—you and me—on our good fortune in having ready for the job a good man whose time has come.

J.B.T.

## Favorite People

The number of my favorite people inhabiting the next world is steadily growing, and the pace of their departure from this one seems to be accelerating with every passing day. Moreover, replacements for them are getting harder and harder to come by, as progressively fewer of those exposing their talents to me seem to be operating on my fading wavelength. The fault is likely not theirs, but doubtless has to do with the times. Nevertheless, it's hard for me not to get the distinct impression that I'm rapidly becoming an anachronism. My favorite music man is still Lawrence Welk, who many of the then young, now with grown children of their own, considered an anachronism 30 years ago. I take some comfort in having a lot of company, in that the Lawrence Welk Show has been for some years accounted the most popular one on our PBS channel. Some who like it now are the same ones who once thought it an anachronism. On the other hand, there are those who think PBS largely an anachronism itself.

Though I recently made some less than complimentary remarks about Valentines, I am about to make an exception, demonstrating my innate lack of, and disregard for, consistency. This piece is what you might call a belated Valentine to two of my favorites who are still around, though their earthly shell, like those of the others of our generation, is wearing thin. As you read, you might gain the impression that this has nothing to do with medicine. About that I have only this to say. First, and perhaps most pertinent, is, since when has that ever deterred me? My other comment is that in fact it does have.

When I came to Nashville in 1938 to enter Vanderbilt the Grand Ole Opry was in its infancy, and most of the people I knew, perhaps all of them, paid little if any attention to it. The home of the Opry at that time was the War Memorial Auditorium, which was not air conditioned, and I can still picture



the Opry-goers sitting in the windows eating supper out of the paper bags they had brought with them. On an occasional Saturday evening when boredom had set in, a few of us might drop over there from the fraternity house to see what was going on. What was going on was a lot, but I carry with me few recollections about what that lot might have been.

Country music was different then from what it is today; it was pure what is now called Bluegrass, although it came very soon to include Country-Western. Country-Pops came along only relatively recently. Country music was, as it still is, something less than my favorite art form, though I do at the same time take strong exception to any notion that it is no art form at all. (As further demonstration of my inconsistency, one of the true artists I like above most others to hear perform is Chet Atkins.) I came up in the days of the Big Bands, and my non-classical preferences have stayed there. My early favorite among the country music performers, and one of my favorites among all contenders, was Red Foley, who left us many years ago. Floyd Kramer, Boots Randolph, Pete Fountain, and the like, all of whom have "done the Nashville scene," don't count. They're great, and all that, and I enjoy listening to them, but they aren't a part of what I call country music. It's Country Music because it's in Nashville, just as everything in New Orleans tends to be Dixieland even when it isn't.

In 1990 a plainly dressed, very funny lady wearing an even funnier straw hat that still carried its price tag dangling down over its owner's eyes celebrated her 50th anniversary with the Opry, which means that she hove into the limelight from Grinder's Switch, which is just east of Centerville, in 1940. I have no recollection at all as to when it was she began to brighten my days. It just seems she has always been around. For reasons that I have never been quite able to fathom, she can get a laugh out of just about any ordinary sentence. I use the present tense, because fortunately she is, as I commented earlier, still with us, and in her increasingly rare appearances just as funny as ever, despite recent tribulations. I have never encountered anybody who had anything but good to say for Cousin Minnie Pearl. Cousin Minnie has been a favorite of presidents and kings and queens, despite which she has never been overly impressed with her own importance, which is inestimable; she is, in fact, a favorite of almost everyone—an institution, and a legend in her own time, so to speak.

Minnie is a favorite not only because she is funny, but because she has been profligate in sharing her humor, much of the time with no other compensation

than the satisfaction of having done so, in hospital wards and wherever else the unfortunate have congregated. Just about everybody in the English-speaking world, and doubtless many elsewhere, too, know that "How-dee" presages a lot of fun. Minnie Pearl is, in addition to being one of the funniest people alive, also one of the most compassionate and generous.

There is a saying that if you want a job done right, get a busy person to do it. This holds true more often than not, and the eleemosynary institutions capitalize on it. One of the busiest people around Nashville, and likely anywhere else, as well, is Mrs. Henry Cannon, nee Sarah Ophelia Colley. Individuals who have had the good fortune to work with Sarah Cannon have their own various fond memories of her industry and dedication. Mine have to do with her work with the American Cancer Society, which she served as one of its most effective Crusade chairmen. She has served the Cancer Society and the cause of cancer in other ways, too, but that just happens to be the place where our paths crossed. It antedated by a number of years her own bout with bilateral breast cancer, which in each instance slowed her up only briefly, and served only to increase her dedication. That experience led her to be instrumental in the founding of the Sarah Cannon Cancer Center in Centennial Medical Center in Nashville. Sarah Cannon is an incomparably civic-minded individual who is extremely generous with her time, talents, and substance.

Surely there is no one who will read this, and indeed few people anywhere, who are unaware that these two lovely ladies inhabit the same body. There is more than a touch of magic in that relationship, since whenever Sarah Cannon puts on that straw hat, she *becomes* Cousin Minnie; it is no act. And as one talks with the cultured Sarah, flashes of her witty cousin continually shine through. It is no secret that the body they jointly inhabit is incapacitated by a stroke suffered several months ago that left her left side paralyzed; the forced inactivity is a near unbearable frustration to these two creative individuals. Progress toward recovery through physiotherapy, though measurable, seems excruciatingly slow.

Well-wishers abound, and many wrack their brains in an attempt, often futile, to devise ways in which to show their concern. In a recent interview reported in the Nashville *Tennessean*, Henry Cannon assured the concerned that neither Minnie nor Sarah had need of their substance, but only their love and their prayers.

Well, she certainly has those, and without measure. There is no tribute that could be made here, or maybe anywhere else, for that matter, that has not



been made many times over, often from the medical community; there is nothing that could be said here that has not been endlessly repeated. Another accolade is rather gross redundancy. This piece, therefore, could have been left unwritten, except that I, like all those others who love her, couldn't leave it that way. The *Journal* is an appropriate place to pay her homage.

Norman Cousins has written a book on the healing power of laughter. There is no richer source of it than the Light Heart from Grinder's Switch. We wish our fellow practitioner of the art of healing a speedy recovery, and many another fruitful, joyous year at spreading it around.

J.B.T.



*Robert Louis Akin*, age 80. Died March 1, 1992. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

*William H. Armes Jr.*, age 53. Died February 20, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

*Gordon Steely Ballou*, age 54. Died March 14, 1992. Graduate of University of Tennessee College of Medicine. Member of Knoxville Academy of Medicine.

*Lloyd V. Crawford*, age 69. Died March 13, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

*Andrew Hoyt Crenshaw*, age 71. Died October 18, 1991. Graduate of Emory University School of Medicine. Member of Memphis-Shelby County Medical Society.

*Elizabeth Gehorsam*, age 84. Died November 4, 1991. Graduate of Medizinische Fakultät der Ludwig Maximilians Universität. Member of Memphis-Shelby County Medical Society.

*Robert H. Harvey*, age 81. Died February 18, 1992. Graduate of Vanderbilt University School of Medicine. Member of Washington-Unicoi-Johnson County Medical Association.

*Dudley G. Lockwood Jr.*, age 82. Died November 8, 1991. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

*Bruce Rankins Powers*, age 82. Died March 4, 1992. Graduate of Jefferson Medical College. Member of Knoxville Academy of Medicine.

*Sidney D. Vick*, age 68. Died March 8, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during February 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

*Ira L. Arnold, M.D.*, Chattanooga  
*Samuel L. Banks, M.D.*, Chattanooga  
*Frances H. Barnett, M.D.*, Jasper  
*Mary C.M. Dundon, M.D.*, Goodlettsville  
*John C. Flynn, M.D.*, Nashville  
*Francis A. Goswitz, M.D.*, Oak Ridge  
*James M. Hamlett III, M.D.*, Memphis  
*Robert E. Hande, M.D.*, Brentwood  
*Richard T. Hoos, M.D.*, Nashville  
*Henry C. Howerton, M.D.*, Nashville  
*William H. Ledbetter, M.D.*, Nashville  
*H. Lynn Magill, M.D.*, Memphis  
*Clarence B. Marsh, M.D.*, Chattanooga  
*William T. Patten, M.D.*, Goodlettsville  
*Margaret W. Rhinehart, M.D.*, Spencer  
*Deloris E. Rissling, M.D.*, Chattanooga  
*Richard Rubinowicz, M.D.*, Nashville  
*Jerome S. Siegel, M.D.*, Memphis  
*Bobby J. Smith, M.D.*, Dickson  
*James H. Thomas, M.D.*, Savannah

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### BENTON-HUMPHREYS COUNTY MEDICAL SOCIETY

*Nestor Armando Ojeda, M.D.*, Waverly

### CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

*Antonia Marie Chadwick, M.D.*, Chattanooga

### HENRY COUNTY MEDICAL SOCIETY

*William Gardner Rhea Jr., M.D.*, Paris

### KNOXVILLE ACADEMY OF MEDICINE

*Jack David Lyons, M.D.*, Knoxville

*Susan M. Schwarz, M.D.*, Knoxville

### LAWRENCE COUNTY MEDICAL SOCIETY

*John Dominic Credico, M.D.*, Lawrenceburg



**MAURY COUNTY MEDICAL SOCIETY**  
*Robert Wallace McClure, M.D., Columbia*

**MEMPHIS-SHELBY COUNTY  
MEDICAL SOCIETY**

*Clay V. Jones, M.D., Memphis*  
*J. Lucius McGehee, M.D., Memphis*  
*Jeffrey Miles Newman, M.D., Memphis*  
*Otis A. Plunk Jr., M.D., Germantown*

**MONTGOMERY COUNTY MEDICAL SOCIETY**  
*Adel S. Saleh, M.D., Clarksville*

**NASHVILLE ACADEMY OF MEDICINE**

*Randall M. Falk, M.D., Nashville*  
*Bruce Hollinger, M.D., Nashville*  
*Patrick Brian Murphy, M.D., Nashville*  
*Brian D. Stoll, M.D., Nashville*  
*Cynthia A. Turner-Graham, M.D., Nashville*

**SMITH COUNTY MEDICAL SOCIETY**  
*Michael H. West, M.D., Carthage*

**SULLIVAN COUNTY MEDICAL SOCIETY**

*Charles Stephen Houston, M.D., Kingsport*  
*Edith Rodgers Jarboe, M.D., Blountville*  
*John B. Standridge, M.D., Kingsport*

**WASHINGTON-UNICOI-JOHNSON COUNTY  
MEDICAL ASSOCIATION**

*Elizabeth S. Bray, M.D., Johnson City*  
*Freeman Edward Broadwell, M.D., Johnson City*  
*Andrea Chastang, M.D., Mountain City*  
*W. Duncan Davis, M.D., Johnson City*  
*Elizabeth A. Williams, M.D., Johnson City*

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

June 7-12	American Society of Colon and Rectal Surgeons—San Francisco Hilton
June 8-9	Society for Vascular Surgery—Hyatt Regency, Chicago
June 9-12	Society of Nuclear Medicine—Los Angeles Convention Center
June 17-22	National Association of EMS Physicians—Pittsburgh
June 18-21	American Association of Neuropathologists—Adam's Mark, St. Louis
June 18-23	American Diabetes Association—Marriott Riverwalk, San Antonio, Tex.
June 23-27	Undersea and Hyperbaric Medical Society—Hyatt Regency, Bethesda, Md.
June 24-27	Endocrine Society—Marriott Rivercenter, San Antonio, Tex.
July 6-9	American Orthopedic Society for Sports Medicine—Marriott, San Diego
July 12-17	Flying Physicians Association—Pocono Manor Resort, Pocono Manor, Pa.

#### STATE

June 24-26	98th Annual Upper Cumberland Medical Society Meeting—Fall Creek Falls Resort Inn, Pikeville
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## FAMILY PRACTITIONERS: THE ARMY OFFERS YOU A THRIVING PRACTICE WITH UNIQUE ADVANTAGES.



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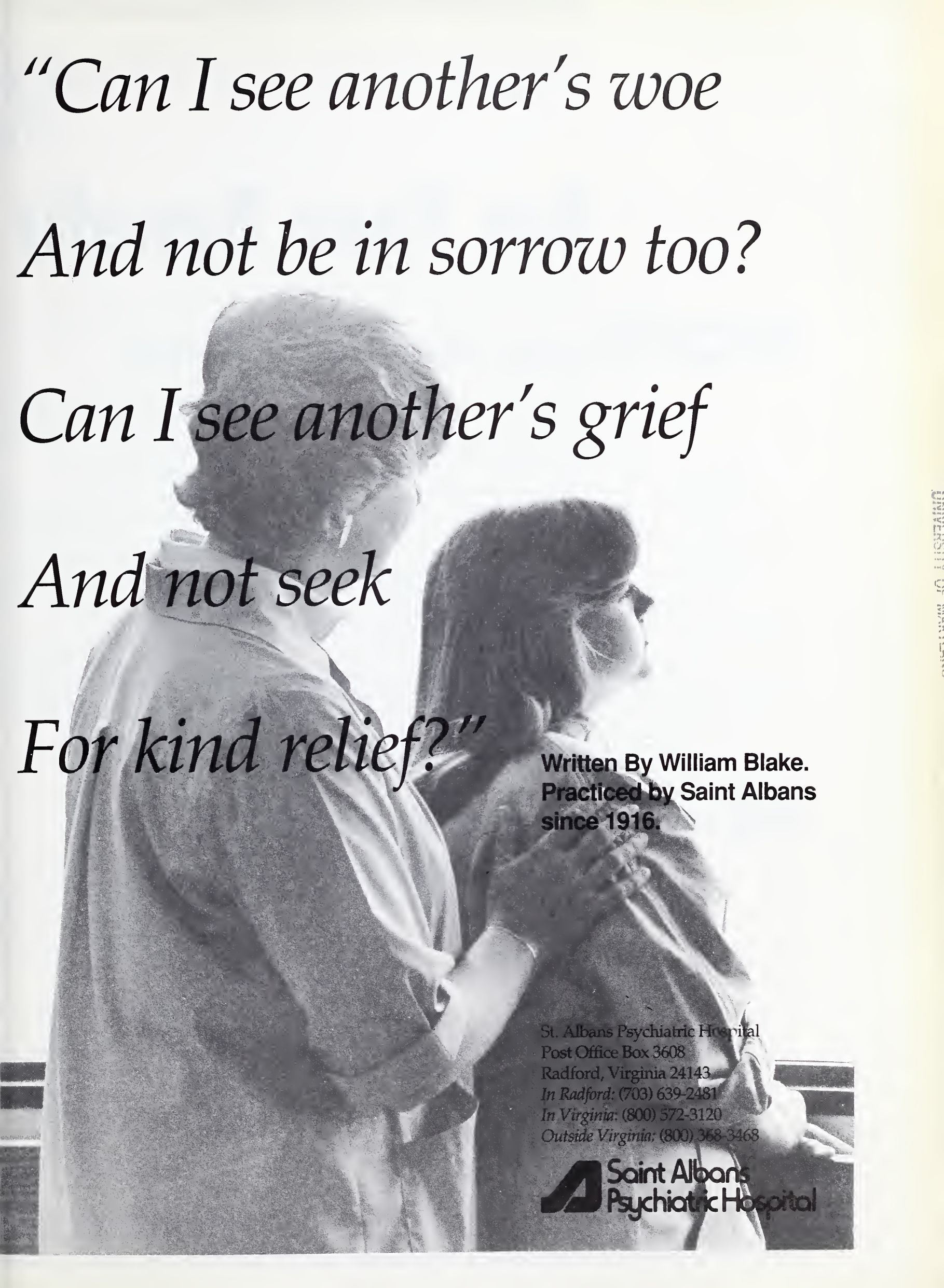
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## For Your Benefit

### AMA Health Care Reform Strategy: Pressing The Issue

The American Medical Association and the Federation do more than merely outline recommendations for health care reform. AMA and Federation members actively focus efforts on research, strategies, surveys and pilot projects to find out what you really want and how to keep this agenda a top priority.

*Practice Parameters.* Inappropriate care inflates rising health care costs. Developed by the medical community, practice parameters help to assure appropriate, high quality medical services for your patients; that way, they have the potential to reduce inappropriate care and costs.

*Outcomes Research.* The AMA supports [1] continued small area

analysis and outcomes research, and government and private funding for outcomes research and developing practice parameters to ensure substantial physician input.

*Reducing the Administrative Costs.* Now, there are too many different forms to choose from in order to submit the right insurance claim. Uniform claim forms and electronic billing need to be used more often to speed billing and cash flow.

*Tort Reform.* Defensive medicine costs an estimated \$15 billion yearly to the American health care bill. Tort reform and reducing liability exposure will cap on these health care expenditures.

### AMA Pro Tort Reform As Benefits Catalyst

The AMA continues to advocate strong medical liability tort reform and experimentation with alternate methods for resolving medical liability claims. As part of our Health Access America campaign, the AMA argues that both health care access and cost containment goals cannot be met unless liability reform is part of the solution.

The Bush Administration is listening. Vice President Quayle sent to Congress the Access to Justice Act of 1992, containing provisions that encourage alternative dispute

resolution, shorten the litigation process and strengthen sanctions against those who sue in bad faith. President Bush introduced his health care reform plan, which repeats his call for strong federal medical liability reform.

This year, the AMA is escalating its federal coalition-building activity with business representatives, labor groups and others to communicate this part of the health care reform message to Congress and to all presidential candidates.



# 's Health Care Reform: Our Cause, Its Effect

A movement of national proportions is taking hold in America. Health care reform is advancing toward the forefront of the American conscience, meaning real change for all of us. Since introducing Health Access America in 1990, the AMA has achieved success in influencing key aspects of many of the leading reform proposals. Take a look for yourself at the abbreviated similarities and differences.

## Insurance

*AMA's Health Access America.* On this issue the AMA applauds many of the similarities between Health Access America and the other plans. Our proposal urges a phase-in of mandatory employer-provided health insurance. Medicaid would cover everyone below the poverty level. Premium subsidies for the near poor. Risk pools for the uninsurable.

*Bush Plan.* No employer mandate. Individuals given transferrable health insurance certificates to use toward purchasing insurance or a deduction for health insurance costs. Insurance and liability reforms emphasized.

*Clinton Plan: "Play or Pay."* Employers would be required to provide employees a minimum health plan or to contribute to a government-subsidized plan. Poor and unemployed also would have access to the "public plan."

## Benefits

*AMA.* Employers would be required to provide a federally-designated minimum benefits package which would

cover basic physician, hospital, diagnostic, prenatal and well-baby care.

*Bush.* Each state would define for itself the basic benefits package equal to the health tax credit.

*Clinton.* A federal health board would establish the benefits package that all insurers and the "public plan" would be required to provide.

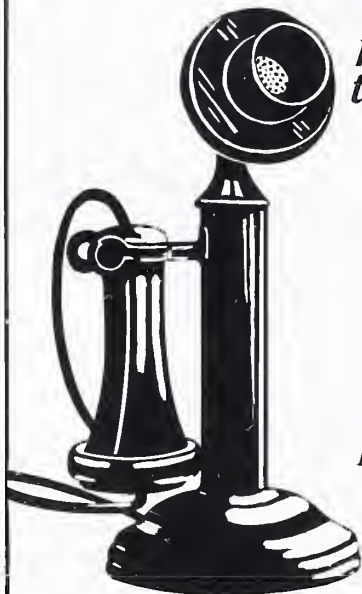
## Cost Containment

*AMA.* Practice parameters to guide appropriate medical care. Enhance consumer decision-making through sharing of cost/fee information. Reduce incentives for consumers to overinsure. Cost sharing to encourage consumer cost awareness. Liability reform to decrease practice of defensive medicine. Medical societies to conduct fee review. Health IRAs. We support use of electronic billing and standardized claim forms as seen in the Bush plan. Override state-mandated benefit laws. Small market health insurance reform. Reduce administrative costs. Amend ERISA. Tax caps on health insurance.

*Bush.* Standardized claim forms and electronic billing. Enhanced utilization review. Increased use of "coordinated" care systems. Sharing of comparative information on cost and quality. Promote healthy lifestyles and preventive health programs.

*Clinton.* Federal health board sets annual health budget targets nationally and by state. All-payer reimbursement system to be developed. Streamlined claims processing. Eliminate tax breaks for certain drug company activities. Medical practice guidelines.

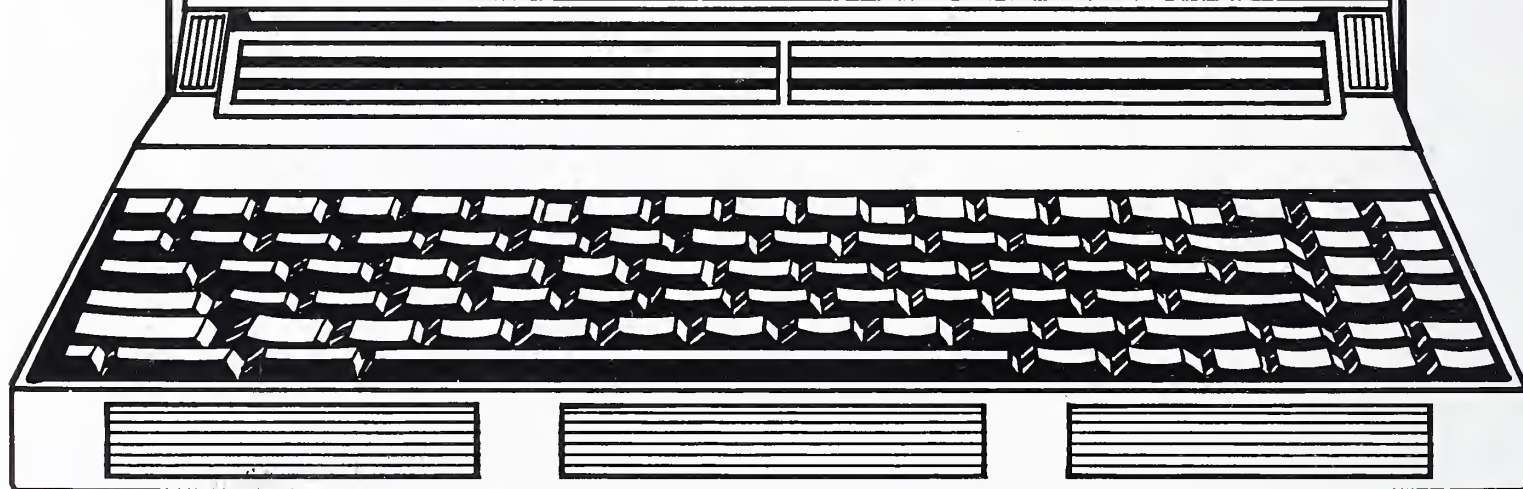
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## Youth Health Project Allocations

The Tennessee Medical Association and the TMA Auxiliary make a substantial commitment of time, energy, and money to improving the health and attitudes of our young people across the state. It is through the following programs and projects that we express our concern for the health and well-being of others. Also, these programs enhance the image of physicians and the medical profession.

Comprehensive school health is the focus of auxiliaries in Memphis, Chattanooga, and Knoxville. With the financial help and guidance of auxiliaries, many school systems are adopting the Growing Healthy curriculum, a hands-on program using a variety of teaching techniques, including role playing, open discussion, and other active exercises. This interdisciplinary program draws on many subjects, such as math, art, science, and social studies. It is an expensive task to train teachers and supply the necessary equipment.

The Washington-Unicoi-Johnson Medical Auxiliary (Johnson City) held the "Living and Loving It" Workshop at Science Hill on April 23-24, 1991. Students enrolled in health, child care, or home economics classes at the school attended the sessions of their choice. Topics included teen suicide, sexual abuse, death and grief, date rape, pregnancy, including prenatal and postnatal care, sexually transmitted diseases, family and peer relationships, and substance abuse. The unique part of this program was that auxiliaries worked "Topper Tots," a child care program enabling the teen mothers to attend the sessions. Marian Frazier, director of "Topper Tots," said, "It is wonderful to network with the medical community, who saw the need to provide this vital information for our young men and women. It also provided an opportunity for coordination of the health and home economics classes to have outstanding guest speakers to present this information."

The Paris Auxiliary (Henry-Carroll County) held its Youth Health Workshop with Gayle Grant of Sex Respect, Inc. as the keynote speaker. Over 750 junior high students from six schools attended the workshop at the Grove Middle School auditorium on Oct. 9. The group also heard Danny Kimberlin, M.D., speak on sexually transmitted diseases. Following this workshop, Mrs. Grant spoke over Channel 1 TV for one hour to more than 1,400 high school students at Henry County High School. Her live presentation was televised throughout the school from the library, where she talked to student council representatives. The preceding evening, she spoke to interested adults to explain the workshop and Sex Respect curriculum. On Oct. 11, the

Partners in education of the neighboring schools in McKenzie (Carroll County) took advantage of Mrs. Grant being in the area, by contracting for the workshop for junior high students in the morning and high school students in the afternoon.

Cleveland (Bradley County Auxiliary) 7th and 8th graders attended a dramatic presentation against drug and alcohol abuse called "Halfway There." This was presented by the Periwinkle National Theater for Young Audiences. The presentations were held in two junior high school gymnasiums so that the entire student body could attend. In the evening the program was presented at the Cleveland State Community College and was open to the community. An additional 450 people of all ages attended. Chattanooga Channel 3 TV featured an auxiliary on the morning program. Vanessa Clark spoke about the program, invited people to attend, and gained positive public relations. She showed that medical families are concerned about the health of their community.

The Middle Tennessee State University was the site of the Murfreesboro (Rutherford County/Stones River) Auxiliary Teen Health Workshop on Dec. 16, 1991. "Teen Choices/Life Directions" featured John Greene, M.D., as the keynote speaker followed by Warren McPerson, M.D., a neurosurgeon. The video "In Harms Way" was shown. If it prevents even one child's diving into unknown water or prevents needless injury through the wearing of a bicycle helmet we know it is money and effort well spent. This was followed by two breakout sessions with 12 choices. Subjects included self-esteem, eating disorders, sexuality, sound body and mind, substance abuse, skin care, family matters, and divorce. Over 900 seventh grade students were able to attend.

The Clarksville Auxiliary (Montgomery County) held its Teen Health Workshop on March 13, 1992. Its format was similar to Murfreesboro. John Greene, M.D., was also the keynote speaker. Approximately 600 eighth graders met at Austin Peay University for a full-day workshop. Students chose from sessions titled, "Me Power" (anger control and communication), "Save Sex Until Marriage" (taught with the Sex Respect curriculum by West Tennessee Consolidated auxiliaries), "Maintaining the Right Weight" (healthy eating), "Stress Management," and "AIDS" (taught by Davidson County auxiliaries).

The Knox County Auxiliary (Knoxville) held a Youth Health Workshop on Jan. 28, 1992, titled "Unmasking Depression in Youth." Parents, educators and anyone who works with youth was invited to attend.



The evening session was approved for in-service credit for Knox County educators. John Robertson, M.D., and Alan Megibow, M.D., presented "Depression: Define It. Defeat It." Approximately 110 adults attended.

The Nashville Auxiliary (Davidson County) has been teaching the Dede Wallace Center/Vanderbilt AIDS Project curriculum to 2,500 students in the metro middle and high schools. The purpose of this program is to educate children about this disease, to encourage them to change behavior, and understand responsible sexual behavior. The volunteers also provide sessions for parents. This is an AIDS education and prevention program. The auxiliaries teach a five-day program for each class (one hour in each classroom).

Together with medical society support and auxiliary talent we are helping our youth make educated healthy choices, teaching decision-making skills, and promoting self-esteem. There are hundreds of health projects helping our communities; the above-mentioned are the ones specifically funded in part by money from the Tennessee Medical Association and Auxiliary. The state contributions have certainly evolved into many diverse projects relating to the health of our children.

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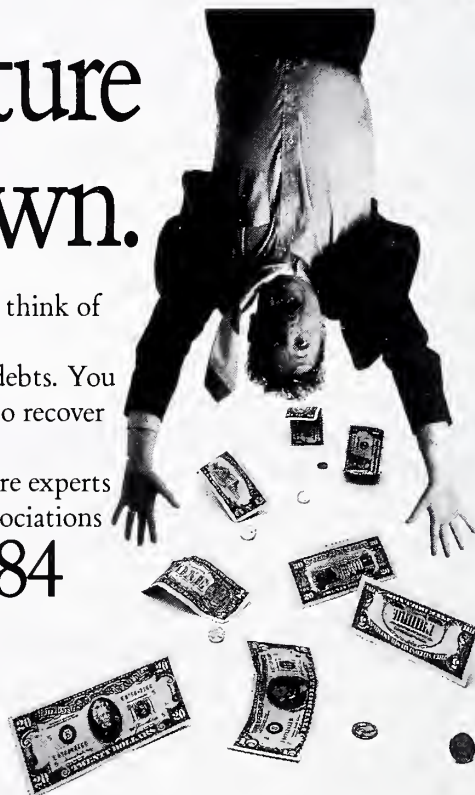
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TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

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#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

June 3-6	Family Medicine Review
June 5-6	Breast Imaging VI
July 14-17	Contemporary Clinical Neurology
Aug. 7-8	Functional Endoscopic Sinus Surgery Workshop 1992
Aug. 11-16	Contemporary Medical Imaging IX—Hilton Head, S.C.
Oct. 1-3	Lasers in Otolaryngology: Head and Neck Surgery
Oct. 2-3	Laryngeal Video Endostroboscopy Workshop
Oct. 16-17	Gynecologic Surgery Workshop in Pelviscopy, LLETZ, and Laser
Oct. 22-24	Vanderbilt Medical Alumni Association's (First Biennial) Reunion 1992

Oct 23-24  
Dec. 3-5

3rd Annual Neonatology Symposium  
Lasers in Otolaryngology: Head and Neck Surgery

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

June 4-5	General Surgery Update
June 11-21	Obstetrics and Gynecology in Russia—Kiev-Moscow-Leningrad
July 27-Aug. 1	Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.
Aug. 6-7	Health Care for the Poor and Uninsured
Sept. 24-25	24th Memphis Conference on the Mother, Fetus, and Newborn
Nov. 12-14	College of Medicine Alumni Weekend

##### Knoxville

June 8-9	Pediatric Advanced Life Support Provider Course—Gatlinburg
June 11-13	37th Annual Great Smoky Mountain Pediatric Seminar—Gatlinburg
June 17-19	6th Annual Infectious Disease Update—Gatlinburg
June 24-26	98th Annual Upper Cumberland Medical Society Meeting—Fall Creek Falls, Pikeville
Aug. 17-19	14th Annual Obstetric Office Ultrasound Workshop
Oct. 1-3	15th Cancer Concepts Course—Gatlinburg

Oct. 5-7	Advanced Cardiac Life Support Providers Course
Oct. 26-28	12th Annual Smoky Mountains Seminar in Obstetrics and Gynecology—Gatlinburg
Nov. 6-8	14th Annual Otolaryngology Course for Primary Care Physicians—Gatlinburg
November	9th Annual Alzheimer's Disease Symposium—Gatlinburg
<b>Chattanooga</b>	
June 1-3	Ob-Gyn Summer Seminar
Sept. 17-18	Internal Medicine Update
Oct. 1-2	Care of the Aging Patient
Oct. 22-23	Critical Care Medicine

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

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Please send curriculum vitae and three references to:

Dan Spengler, M.D.  
Professor and Chairman  
Department of Orthopaedics and Rehabilitation  
Vanderbilt University Medical Center  
D-4219  
Nashville, TN 37232-2550

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## *Abstract of the Proceedings of the House of Delegates Of the Tennessee Medical Association Nashville, Tennessee—April 9-11, 1992*

### **Call to Order**

The 157th annual meeting of the Tennessee Medical Association was conducted in Nashville, Tennessee, April 9-11, 1992, with headquarters in the Opryland Hotel. The House of Delegates met initially at 10:00 AM, April 9, 1992, with George H. Wood, M.D., Knoxville, presiding as speaker of the House and Thurman L. Pedigo, M.D., McMinnville, as vice-speaker.

### **Invocation**

At the opening session, John H. Burkhart, M.D., Knoxville, gave the invocation: "Almighty God our Father, we are convened here today as delegated representatives of a profession which we believe to be a calling emanating from and approved by you. We specifically represent most of the physicians of Tennessee, and in their interests and in the interests of their patients, we seek to strengthen and to improve those services which we are called upon to render.

Bless our efforts as we conduct the affairs that come before this House of Delegates and keep us mindful of our obligations to you, to our colleagues, to our state and our nation, and especially to those who depend upon us for their care and their support. Encourage and guide us to be fair, patient, tolerant and judicious, for in carrying out our duties as members of this House of Delegates, we believe we are serving the Creator, the Sustainer, the Healer of all mankind. Amen."

### **Report of the Committee on Credentials**

A. Brant Lipscomb, M.D., Nashville, chairman of the Committee on Credentials, reported there was a quorum present. The speaker declared the House was in Session.

### **1991 Minutes Approved**

The speaker announced that an abstract of the minutes of the last regular session of the House of Delegates was reproduced in the June 1991 issue of the *Journal of the Tennessee Medical Association*. It was moved and seconded that the abstracted minutes of the 1991 session of the House of Delegates be approved as published in the June 1991 issue of the *Journal*. The motion was adopted.

### **Reference Committees**

The speaker announced the members of the reference committees to consider reports, resolutions, amendments, and all matters requiring action by the House of Delegates.

#### **REFERENCE COMMITTEE ON CREDENTIALS**

A. Brant Lipscomb, M.D., Nashville, *Chairman*  
Carolyn E. Cooley, M.D., Knoxville  
Thomas A. Currey, M.D., Memphis

#### **REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS**

John H. Burkhart, M.D., Knoxville, *Chairman*  
C. Eugene Jabbour, M.D., Memphis  
Charles E. Jordan, M.D., Cookeville

#### **REFERENCE COMMITTEE A**

L. Dow Strader, M.D., Bristol, *Chairman*  
Wendell V. McAbee, M.D., McMinnville  
William L. Moffatt III, M.D., Memphis

#### **REFERENCE COMMITTEE B**

Arnold M. Drake, M.D., Memphis, *Chairman*  
Mary A. Duffy, M.D., Chattanooga  
Starling C. Evins, M.D., Franklin

#### **REFERENCE COMMITTEE C**

Joseph B. Moon, M.D., Knoxville, *Chairman*  
Russell B. Leftwich, M.D., Nashville  
James D. King, M.D., Selmer

#### **REFERENCE COMMITTEE D**

Michael P. Miller, M.D., Nashville, *Chairman*  
William R. McKissick, M.D., Knoxville  
Joe P. Anderson, M.D., Memphis

#### **COMMITTEE TO ELECT OUTSTANDING PHYSICIAN OF THE YEAR**

John B. Thomison, M.D., Nashville, *Chairman*  
William O. Miller, M.D., Knoxville  
Hamel B. Eason, M.D., Memphis

## Nominating Committees

As required in the Bylaws, the Board of Trustees appointed a Nominating Committee with representatives from each of the three grand divisions of the state. The speaker announced the committee members.

### EAST TENNESSEE

Nat E. Hyder Jr., M.D., Johnson City  
Sam J. Williams III, M.D., Chattanooga  
David G. Gerkin, M.D., Knoxville

### MIDDLE TENNESSEE

Will G. Quarles Jr., M.D., Livingston  
William M. Young, M.D., Fayetteville  
Arthur G. Bond, M.D., Nashville

### WEST TENNESSEE

James R. Donnell, M.D., Jackson  
J. Chris Fleming, M.D., Memphis  
John D. Lay, M.D., Savannah

**ELECTION BY  
HOUSE OF DELEGATES  
April 11, 1992**

The preliminary report of the Nominating Committee was presented in the first session of the House of Delegates on Thursday, April 9, 1992. The final report of the Nominating Committee was presented on Saturday, April 11, 1992 at the closing session of the House. Nominees submitted by the committee were voted upon individually, and in each instance the speaker called for additional nominations from the floor. The following were elected.



**Newly elected President-Elect  
Charles W. White, M.D., Lexington**

*President-Elect*—Charles W. White, M.D., Lexington  
*Speaker*—George H. Wood, M.D., Knoxville  
*Vice-Speaker*—Thurman L. Pedigo, M.D., McMinnville  
*Vice-President (East Tennessee)*

Burgin E. Dossett Jr., M.D., Johnson City  
*Vice-President (Middle Tennessee)*  
Starling C. Evins, M.D., Franklin

### *Vice-President (West Tennessee)*

Robert D. Kirkpatrick, M.D., Memphis  
*AMA Delegate (East Tennessee)*

William O. Miller, M.D., Knoxville  
(January 1, 1993-December 31, 1994)

### *AMA Alternate Delegate (East Tennessee)*

Nat E. Hyder Jr., M.D., Johnson City  
(January 1, 1993-December 31, 1994)

### *AMA Delegate (East Tennessee)*

Charles Ed Allen, M.D., Johnson City  
(January 1, 1993-December 31, 1994)

### *AMA Alternate Delegate (East Tennessee)*

James R. Royal, M.D., Chattanooga  
(January 1, 1993-December 31, 1994)

### *AMA Delegate (West Tennessee)*

Thomas K. Ballard, M.D., Jackson  
(January 1, 1993-December 31, 1994)

### *AMA Alternate Delegate (West Tennessee)*

J. Chris Fleming, M.D., Memphis  
(January 1, 1993-December 31, 1994)

### *AMA Delegate (State-at-Large)*

Hamel B. Eason, M.D., Memphis  
(January 1, 1993-December 31, 1994)

### *AMA Alternate Delegate (State-at-Large)*

Robert E. Bowers, M.D., Chattanooga  
(January 1, 1993-December 31, 1994)

### *AMA Delegate (State-at-Large)*

George A. Zirkle Jr., M.D., Knoxville  
(January 1, 1993-December 31, 1994)

### *AMA Alternate Delegate (State-at-Large)*

Francis W. Gluck Jr., M.D., Nashville  
(January 1, 1993-December 31, 1994)

### *AMA Young Physician Section Delegate*

William L. Hickerson, M.D., Memphis  
(April 11, 1992-April 17, 1993)

### *AMA Young Physician Section Delegate*

Robert W. Herring Jr., M.D., Brentwood  
(April 11, 1992-April 17, 1993)

### *AMA Young Physician Section Alternate Delegate*

Fred Ralston Jr., M.D., Fayetteville  
(April 11, 1992-April 17, 1993)

### *AMA Young Physician Section Alternate Delegate*

G. Whit Holcomb III, M.D., Nashville  
(April 11, 1992-April 17, 1993)

## TRUSTEES

### *East Tennessee:*

David G. Gerkin, M.D., Knoxville (1995)  
Hays Mitchell, M.D., McDonald (1995)

### *Middle Tennessee:*

Barrett F. Rosen, M.D., Nashville (1995)

### *West Tennessee:*

Richard M. Pearson, M.D., Memphis (1995)

## COUNCILORS

*First District*—Jere W. Ferguson, M.D., Bristol (1994)

*Third District*—Walter D. Parkhurst, M.D., Chattanooga (1994)

*Fifth District*—Bruce M. Gipson, M.D., Shelbyville (1994)

*Sixth District*—H. Victor Braren, M.D., Nashville (1993)

*Seventh District*—Norman Henderson, M.D., Lawrenceburg (1994)

*Ninth District*—John Hale, M.D., Union City (1994)

## THE ABOVE WERE ELECTED BY THE HOUSE OF DELEGATES



# AMENDMENTS TO THE CONSTITUTION AND BYLAWS

The speaker reported that there was one amendment to the Constitution and three amendments to the Bylaws to be considered at this session by the House.

The proposed amendments to the Constitution and Bylaws are shown below, with proposed new language shown in **bold-face** type and material to be deleted shown in *italics* and enclosed in brackets.

## AMENDMENTS TO THE CONSTITUTION

### CONSTITUTION AMENDMENT NO. 1-92

#### Board of Trustees Elections

Whereas, The House of Delegates unanimously adopted Resolution No. 25-91 in an effort to establish a more equitable turnover on the Board of Trustees; and

Whereas, The Tennessee Medical Association Constitution only allows for three-year terms for Board members, and Resolution No. 25-91 contradicts the Constitution; and

Whereas, The House of Delegates desires to correct the inequitable situation as soon as possible, however, the Constitution, in order to be changed, requires a one-year layover period. Now, therefore be it

**RESOLVED**, That Article VIII, Section 2, Paragraph 3 of the Constitution be amended as follows:

The elected trustees shall serve for a period of three years and no trustee shall be eligible immediately to succeed himself, except that this provision shall not apply to a trustee who by virtue of election or appointment has served any portion of another's unexpired term. **However, if it be deemed necessary due to extraordinary circumstances, the House of Delegates may elect trustees for terms other than three years.**...

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS—*recommended adoption of Constitution Amendment No. 1-92.*

**ACTION: Lying on the table to be acted upon during the House of Delegates session at the 1993 annual meeting.**

## AMENDMENTS TO THE BYLAWS

### BYLAW AMENDMENT NO. 1-92

#### Deletion of Impaired Physician Peer Review Committee as a Standing Committee

Whereas, The Impaired Physician Peer Review Committee (IP/PRC), as a standing Committee of the Tennessee Medical Association under Bylaw Chapter VII, Section 8(a) and 18, has maintained the Impaired Physician Program; and

Whereas, The Tennessee Medical Association in 1954 formed the Tennessee Medical Foundation, Inc. and has since then maintained and managed it for a wide variety of educational, scientific, and charitable tax-exempt functions; and

Whereas, Several advantages would occur if the IP/PRC

and IPP were shifted under the corporate umbrella of the Tennessee Medical Foundation, Inc. including the ability to accept tax-deductible contributions from individuals and corporations, and the benefit of increased immunity from legal liability for those individuals who are part of the IP/PRC, the IPP, and its operations. Now, therefore be it

**RESOLVED**, That Bylaw Chapter VII, Section 8(a), number 10, which reads "Impaired Physician Peer Review Committee," be deleted, and numbers 11 and 12 be renumbered; and be it further

**RESOLVED**, That Bylaw Chapter VII, Section 18, be deleted entirely and Sections 19, 20, and 21 be renumbered accordingly.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS—*recommended adoption of Bylaw Amendment No. 1-92.*

**ACTION: ADOPTED**

### BYLAW AMENDMENT NO. 2-92

#### Renaming and Expansion of the Duties of the Committee on Governmental Medical Services

Whereas, Physicians are facing increasing difficulties with third party payors including utilization review, case management, frivolous payment reductions and denials, and other activities; and

Whereas, Such activities interfere with a physician's ability to practice medicine in the best interest of the patient; and

Whereas, Government is exerting more and more control over third party payors; and

Whereas, Third party payors are, both unilaterally and through legislation, becoming integrated with policies adopted by governmental insurance programs such as the proposed adoption of the Resource-Based Relative Value Scale; and

Whereas, Because of the importance and similarity of governmental and private insurance issues, it is logical that they be addressed by a single committee. Now, therefore be it

**RESOLVED**, That Chapter VII, Section 11, be amended as follows:

Sec. 11. The Committee on Governmental Medical Services **and Third Party Payors** shall be composed of not more than nine members. The committee shall concern itself and assume special responsibility in obtaining information and giving counsel and advice to the Association with respect to all matters in which medical service comes into contact with any existing or proposed functions of government, including medical services in welfare departments, maternal and child health programs sponsored through governmental agencies, plans and programs for medical care of veterans, medical care for dependents of those in uniformed services of the government, plans and programs of the government for medical care now existing or which may hereafter be adopted by any special group, and any and all programs and plans for medical care to be provided through municipal, state or federal governments. **Also, the committee shall advise the Association concerning third party payors from any segment of society.**

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS—*recommended adoption of Bylaw Amendment No. 2-92.*

**ACTION: ADOPTED**

## BYLAW AMENDMENT NO. 3-92

### Judicial Council's Peer Review Procedures

Whereas, The Tennessee Medical Association's (TMA) 1991 House of Delegates updated the Bylaws to incorporate a procedural handbook to be published by the Board of Trustees for use during TMA peer review actions; and

Whereas, There remain some minor procedural conflicts between Bylaw Chapter VI, Sections 3 and 4, and the Board's published handbook over how the Judicial Council proceeds with original peer review actions; and

Whereas, If Bylaw Chapter VI, Sections 3 and 4(a) were amended, the Judicial Council would be able to follow the Board's published handbook. Now, therefore be it

**RESOLVED**, That the first sentence of Bylaw Chapter VI, Section 3 be amended by deletion as follows:

Sec. 3. A councilor shall be designated by the chairman to investigate each matter referred to the Judicial Council relating to allegedly improper conduct *[of members and/]* or activities of component societies . . . ; and be it further

**RESOLVED**, That the last sentence of Bylaw Chapter VI, Section 4(a) be amended by deletion and insertion as follows:

. . . Such hearings shall be conducted by *[no less than five members of the Judicial Council, excluding the investigating member who shall not be eligible to participate therein]* **the Judicial Council pursuant to the Board of Trustees extant policy handbook as described in Chapter VI, Section 4(b).**

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS—*recommended adoption of Bylaw Amendment No. 3-92.*

ACTION: **ADOPTED**

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## RESOLUTIONS

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The reference committees have the option of recommending a resolution for adoption or rejection, for adoption as amended or substituted, for referral, or for no action. The resolutions that follow are in the form in which they were **adopted, not adopted, or referred** by the House of Delegates. Resolution No. 26-92 was withdrawn.

### RESOLUTION NO. 1-92

#### Reaffirmation of Resolution No. 2-85 (Mandatory Acceptance of Assignment for Insurance)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, There is growing pressure from all sources of third party payment to require acceptance of assignment as a requirement for payment; and

Whereas, Such requirement is another direct intrusion into the right of a physician to manage his or her private practice; and

Whereas, Mandatory acceptance of assignment may have a negative impact on access to care for certain patient populations. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association oppose the principle of mandatory acceptance of assignment as a requirement for reimbursement for the care of patients who are

recipients of Medicare benefits; and be it further

**RESOLVED**, That the Tennessee Medical Association vigorously oppose any future effort to include mandatory acceptance of assignment as a condition for reimbursement from any government or private source; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 1-92.*

ACTION: **ADOPTED**

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### RESOLUTION NO. 2-92

#### Reaffirmation of Resolution No. 9-85 (Hepatitis Vaccination of Medical Students)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 9-85 called for the medical schools in Tennessee to make available and encourage Hepatitis B immunization for its students; and

Whereas, It is still appropriate and beneficial to immunize medical students for Hepatitis B. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association continue to urge the medical schools in Tennessee to make available and encourage Hepatitis B immunization for their medical students, and provide such immunization at no cost to the students; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 2-92 as amended.*

ACTION: **ADOPTED AS AMENDED**

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### RESOLUTION NO. 3-92

#### Reaffirmation of Resolution No. 10-85 (Statewide Poison Control)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 10-85 titled "Statewide Poison Control" will sunset at this annual meeting unless reaffirmed or modified; and

Whereas, The intent of Resolution No. 10-85 has been partially satisfied as set forth in Public Chapter 393 which established a statewide poison control network; and

Whereas, The aforementioned legislation carries no appropriation for the establishment of same; and

Whereas, With the closing of poison control centers in Chattanooga and the Tri-Cities, and with services being curtailed in Knoxville, a statewide poison control network is essential for the well-being of the citizenry; and

Whereas, statewide poison control centers have been shown to be cost-effective by optimizing the use of health care facilities by the public. Now, therefore be it



*RESOLVED*, That the Tennessee Medical Association applaud the establishment of a statewide poison control network as set forth in Public Chapter 393; and be it further

*RESOLVED*, That the Tennessee Medical Association request the Commissioner of Health to provide the funding necessary to immediately put into operation said network; and be it further

*RESOLVED*, That a copy of this resolution be forwarded to the Governor, the Commissioner of Health, and the Public Health Council of Tennessee; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 3-92.*

ACTION: ADOPTED

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#### RESOLUTION NO. 4-92

##### Reaffirmation of Resolution No. 11-85 (Ban of "Promotional Drinking")

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 11-85 adopted by the Tennessee Medical Association House of Delegates urged a ban of "promotional drinking" such as happy hours in bars and restaurants; and

Whereas, It is believed where "promotional drinking" does not exist, less alcohol is consumed resulting in a lower percentage of alcohol-related traffic accidents. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association continue to urge the Tennessee Restaurant Association and other such trade associations to urge their member establishments not to engage in "promotional drinking"; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 4-92.*

ACTION: ADOPTED

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#### RESOLUTION NO. 5-92

##### Reaffirmation of Substitute Resolution No. 12-85 (Opposition to Boxing as a Sport)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 12-85 calls for the Tennessee Medical Association to develop a policy of active opposition to boxing as a sport. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association continue to: (1) educate the Tennessee public about the dangerous effects of boxing on the health of participants; (2) encourage the discontinuance as a sport of both amateur and professional boxing; and (3) communicate the feeling in this area to the appropriate regulatory bodies in Tennessee; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 5-92.*

ACTION: ADOPTED

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#### RESOLUTION NO. 6-92

##### Reaffirmation of Resolution No. 13-85 (Opposition to Federally Funded Health Planning)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, The Certificate of Need (CON) program has failed to reduce the cost of health care; and

Whereas, The CON program has reduced the effectiveness of free market competitive forces to restrain health care costs; and

Whereas, Many of the states are deregulating health care at this time; and

Whereas, Health planning should be a voluntary, locally based program designed to address local needs with local resources. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association encourage the Tennessee General Assembly and the Governor of Tennessee to recognize that Tennessee Code Annotated § 68-11-106 (Certificates of Need for Health Facilities) failed to reduce health care costs and to address local needs with local resources and therefore should be allowed to expire in June, 1992; and be it further

*RESOLVED*, That the medical profession through the Tennessee Medical Association and its component societies support voluntary, local health planning by the involved health care professionals; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*recommended adoption of the Resolution No. 6-92 as amended.*

ACTION: ADOPTED AS AMENDED

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#### RESOLUTION NO. 7-92

##### Reaffirmation of Resolution No. 14-85 (Reimbursement for Diagnostic Studies Identified as Surgical Procedures)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

*RESOLVED*, That the Tennessee Medical Association seek to have recognized as strictly diagnostic nontherapeutic surgical procedures which are not applicable to the "global" fee concept such as myelogram, angiogram, arthrogram and discograms, but not limited to these; and be it further

*RESOLVED*, That the Tennessee Medical Association seek a policy for reimbursement for such services separately on a fee-for-service basis, in addition to reimbursement for medical and surgical hospital care on either a "global" fee concept such

as myelogram, angiogram, arthrogram and discograms, but not limited to these; and be it further

*RESOLVED*, That third party payors be notified of this policy; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 7-92.*

ACTION: ADOPTED

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#### RESOLUTION NO. 8-92

##### Reaffirmation of Resolution No. 16-85 (The Living Will)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 16-85 titled "The Living Will" will sunset at this annual meeting unless reaffirmed by this House of Delegates; and

Whereas, At the time this resolution was passed, the Tennessee General Assembly had not yet enacted any type of advance directive legislation; and

Whereas, Since this resolution's passage, the Tennessee General Assembly has enacted both a Right to Natural Death Act creating the Tennessee Living Will, and a statute creating the Durable Power of Attorney for Health Care; and

Whereas, The resolution's policy, which called for the Tennessee Medical Association to oppose any advance directive legislation that would mandate the physician to discontinue life supports without regard to his or her medical opinion, is still a valid concern of organized medicine; and

Whereas, It is the opinion of the Board of Trustees that the Tennessee Medical Association should continue to oppose legislation in this area which interferes with the physician-patient relationship, but that the policy be updated in light of current advance directives law. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association reaffirm Resolution No. 16-85 and continue opposing any advance directive legislation that would mandate the physician to discontinue life supports without regard to the physician's medical opinion; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 8-92 as amended.*

ACTION: ADOPTED AS AMENDED

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#### RESOLUTION NO. 9-92

##### Reaffirmation of Resolution No. 17-85 (Tax on Professional Medical Services)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

*RESOLVED*, That the Tennessee Medical Association be opposed to any tax that singles out physicians, their practices,

and their patients, because of the adverse impact upon quality care at the most affordable price; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 9-92.*

ACTION: ADOPTED

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#### RESOLUTION NO. 10-92

##### Reaffirmation of Resolution No. 18-85 (Government's Response to Resolutions)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 18-85 calls for an annual report from the Chairman of the Tennessee Medical Association's Board of Trustees, outlining response to resolutions forwarded to government officials; and

Whereas, This policy has proven to be beneficial and is excellent for evaluating government's response to Tennessee Medical Association policies. Now, therefore be it

*RESOLVED*, That the Chairman of the Board of Trustees of the Tennessee Medical Association in his annual report to the House of Delegates inform the members of the content of the government's response to all resolutions; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 10-92.*

ACTION: ADOPTED

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#### RESOLUTION NO. 11-92

##### Reaffirmation of Resolution No. 22-85 (Ethical Standards)

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 22-85 titled "Ethical Standards" will sunset at this annual meeting unless reaffirmed by this House of Delegates; and

Whereas, It is the opinion of the Board of Trustees that medicine's traditions and unique values continue to be threatened by marketing and promotional techniques pushed on the profession and the public in the name of competition and cost effectiveness; and

Whereas, Medicine, since the crystallization of its principles and standards by the Hippocratic Oath composed some 2,500 years ago, which it still endorses, has held that the patient's welfare, care, and treatment supersede all other matters; and

Whereas, To guarantee these precepts, medicine has voluntarily subscribed to high standards of education, practice, behavior, and improvement of its body of knowledge and skills as set forth in a documented Principles of Medical Ethics, which, though modified from time to time, are never less than



the laws of the land and in fact generally exceed them. Now, therefore be it

*RESOLVED*, That this House of Delegates of the Tennessee Medical Association, confident that it speaks for the membership, hereby reaffirm its determination to continue to adhere to those high concepts of medical care which put concern for the patient before personal gain and further to refrain from any activity which lowers the ethical standards so essential to the preservation of a noble profession; and be it further

*RESOLVED*, That the Tennessee Medical Association be on record deploring any health care arrangement or delivery system which interferes with that indispensable element of satisfactory health care, the inviolability of the rights of both patient and physician in their relationship one with the other; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 11-92.*

ACTION: **ADOPTED**

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## **RESOLUTION NO. 12-92**

### **Reaffirmation of Resolution No. 25-85 (Control of Over-the-Counter Diet Pills)**

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 25-85 titled "Control of Over-the-Counter Diet Pills" will sunset at this annual meeting unless reaffirmed or modified; and

Whereas, The intent of Resolution No. 25-85 has yet to be realized; and

Whereas, There are drugs sold over the counter claiming to be appetite suppressants that do not have proven safety or effectiveness records; and

Whereas, These drugs without adequate printed warnings are taken by inadequately informed people. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association encourage the Food and Drug Administration to ban over-the-counter diet pills; and be it further

*RESOLVED*, That the Tennessee congressional delegation be asked to assist the Food and Drug Administration in solution of this problem; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 12-92.*

ACTION: **ADOPTED**

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## **RESOLUTION NO. 13-92**

### **One Year Extension of Resolution No. 7-89 (TMA Public Relations Program)**

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, Resolution No. 7-89 was adopted by the Tennessee Medical Association (TMA) House of Delegates creating a

TMA public relations program entitled "Community Awareness Resource and Education" (CARE); and

Whereas, This program was designated to run for a period of three years and funding for this program is scheduled to cease at the end of TMA budget year 1992 unless it is extended by this House of Delegates; and

Whereas, The CARE program has sought to undertake the objectives outlined in Resolution No. 7-89 by implementing various demonstration programs and activities; and

Whereas, Many of these programs and activities need to be continued under the oversight of the Communications and Public Service Committee and can be accomplished in the future with in-house staff. Now, therefore be it

*RESOLVED*, That the dues increase of \$35 approved by the Tennessee Medical Association House of Delegates in 1989 be extended for a period of one year (budget year 1993) to fund the Community Awareness Resource and Education program's continuation; and be it further

*RESOLVED*, That the Communications and Public Service Committee, through the Board of Trustees, develop a plan for continuation of the Community Awareness Resource and Education program utilizing Tennessee Medical Association staff for its operation; and be it further

*RESOLVED*, That the Community Awareness Resource and Education program of the Tennessee Medical Association be extended for a period of one year thus expiring at the end of the Tennessee Medical Association budget year (December 31, 1993).

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 13-92.*

ACTION: **ADOPTED**

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## **RESOLUTION NO. 14-92**

### **Tobacco Use on Tennessee School System Property**

BY: ROBERT CASEY, M.D., DELEGATE  
TENNESSEE ACADEMY OF FAMILY PHYSICIANS

Whereas, Cigarette smoking is the number one cause of preventable death; and

Whereas, secondary cigarette smoke is a leading cause of preventable death; and

Whereas, Nicotine is an addictive drug; and

Whereas, Physicians are deeply concerned with the present and future health of the children in Tennessee. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association recommend and strongly support anti-smoking legislation and education; and be it further

*RESOLVED*, That the Tennessee Medical Association make appropriate contacts with the Tennessee Education Association to effectively eliminate the use of all tobacco products on Tennessee primary and secondary school properties in the state of Tennessee; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*recommended adoption of the Resolution No. 14-92 as amended.*

ACTION: **ADOPTED AS AMENDED**

## **SUBSTITUTE RESOLUTION NO. 15-92**

### **Reimbursement for Stool Occult Blood Studies**

BY: ARNOLD M. DRAKE, M.D., DELEGATE  
MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Whereas, stool occult blood testing is a widely practiced diagnostic procedure; and

Whereas, stool occult blood testing is considered useful both in detecting colon cancer and in follow-up for gastrointestinal bleeding; and

Whereas, The Medicare intermediary in Tennessee has determined that reimbursement for stool occult blood testing will be made on an assigned laboratory basis for diagnostic testing, while screening testing will be on a non-covered basis; and

Whereas, Any differentiation between diagnostic and screening occult blood testing is completely arbitrary (since the Medicare intermediary considers patients who have such diagnoses as esophageal hiatus hernia or diverticular disease of the colon to be in the "diagnostic category"); and

Whereas, Such arbitrary differentiation adds to the hassle in the practice of medicine and is totally without any scientific merit. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association request that the Medicare intermediary recognize preventive standards of care and, therefore, provide reimbursement for all stool occult blood testing and Papanicolaou smears on an assigned laboratory basis, since any increased expense would be minimal and would prevent the arbitrary differentiation between diagnostic and screening categories; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*recommended adoption of Substitute Resolution No. 15-92.*

ACTION: **ADOPTED**

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## **RESOLUTION NO. 16-92**

### **Discrimination by Hospital-Based Preferred Provider Organizations (PPOs)**

BY: C. EUGENE JABBOUR, M.D., DELEGATE  
MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Whereas, More and more patients and employers are opting for managed care plans, i.e., Preferred Provider Organizations (PPOs); and

Whereas, Formerly, physicians on the staffs of involved hospitals were allowed to care for PPO-insured patients regardless of the level of their staff appointments; and

Whereas, Unfortunately, there is discrimination now occurring primarily as a result of hospital medical staffs and boards of directors of PPOs setting policies that eliminate their fellow physicians from participating by requiring a level of staff appointments which is not feasible, and which may violate their primary hospital's constitution and bylaws. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association request that boards of directors of hospital-based Preferred Provider Organizations (PPOs) and their members and hospital medical staffs not exclude from their PPO plans physicians on the basis of staff appointment levels; and be it further

*RESOLVED*, That the Tennessee Medical Association provide legal information to its membership as to how to proceed to overturn the discriminatory policy of excluding staff members from Preferred Provider Organization (PPO) plans based on the physician's level of staff appointments; and be it further

*RESOLVED*, That this resolution be sent to all medical staff and hospital presidents and to boards of directors of hospital-based Preferred Provider Organizations (PPOs) in Tennessee and that this resolution be disseminated to all major newspapers in Tennessee; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*recommended adoption of Resolution No. 16-92 as amended.*

ACTION: **ADOPTED AS AMENDED**

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## **SUBSTITUTE RESOLUTION NO. 17-92**

### **Insurance Company Provider Terminations**

BY: SARAH H. SELL, M.D., DELEGATE  
NASHVILLE ACADEMY OF MEDICINE

Whereas, The physician-patient relationship is the foundation for good medical care, and the abrupt termination of that relationship may result in physical and mental harm to the patient; and

Whereas, When the patient makes the decision to change this relationship, that decision is the patient's choice and he or she assumes the risk; and

Whereas, By contrast, when an insurance carrier (of any type) decides to terminate a physician from its provider network, that decision adversely affects the physician-patient relationship, and may cause the patient to suffer harm over which he or she has no control. Now, therefore be it

*RESOLVED*, That the Tennessee Medical Association petition the Tennessee Department of Commerce and Insurance to (1) issue and enforce regulations under Tennessee's health insurance laws in order to regulate the process by which third party payors may terminate physician providers; (2) require that third party payors take responsibility for informing patients of the business reasons for such terminations, and provide 90 days' notice to all involved parties so that continuity of care is not interrupted, since such interruption may be detrimental to the patient's health; and be it further

*RESOLVED*, In the event the Tennessee Department of Commerce and Insurance fails to regulate the manner in which third party payors (1) terminate physician providers; (2) reasonably notify physicians and patients of such terminations; and (3) extend coverage during the pre-termination period so that patients may, if desired, secure alternative insurance or another physician, then the Tennessee Medical Association shall draft and submit to the Tennessee General Assembly remedial legislation to accomplish those ends; and be it further

*RESOLVED*, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*offered Substitute Resolution No. 17-92 to replace original Resolutions No. 17-92 and 24-92; recommended adoption of Substitute Resolution No. 17-92.*

ACTION: **ADOPTED AS AMENDED**



## RESOLUTION NO. 18-92

### Reactivation of Tennessee Medicare Access Program (TMAP)

BY: ROBERT N. MONTGOMERY, M.D., DELEGATE  
KNOXVILLE ACADEMY OF MEDICINE

Whereas, The Tennessee Medicare Access Program (TMAP) was formed in 1989 to provide access to health care to less fortunate senior citizens whose incomes do not exceed one and one-half times the poverty level; and

Whereas, TMAP has reached some 8,000 medically needy citizens in Tennessee and provided a tremendous service as all of us who participated in the program can tell from the response of our patients; and

Whereas, The physicians of the Tennessee Medical Association have benefited greatly from this program; and

Whereas, The state of Tennessee in 1991 discontinued its portion of the funding of this program. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association continue to support the Tennessee Medicare Access Program for the benefit of the group of senior citizens who are unable to help themselves and who are not eligible for other similar programs; and be it further

**RESOLVED**, That the component medical societies be encouraged to implement this or similar programs with participation and support from the Tennessee Medical Association; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 18-92 as amended.*

ACTION: ADOPTED AS AMENDED

## RESOLUTION NO. 19-92

### Prevention of Overuse Injuries in Sports

BY: W. JOEL PEDIGO, M.D.  
TN CHAPTER, AMERICAN ACADEMY OF PEDIATRICS  
TENNESSEE PEDIATRIC SOCIETY

Whereas, Repetitive use of the same muscular and skeletal systems over an extended period of time can lead to so-called overuse syndrome, and result in injury or deterioration; and

Whereas, Many elementary and high school sports programs use repetitive training methods, possibly contributing to such injuries; and

Whereas, Many professionals in the field of sports medicine advocate cross training, or variation of training patterns, to prevent such injuries, while still achieving overall fitness, strength, and stamina goals. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association, through its Sports Medicine Committee, work with the Tennessee Secondary School Athletic Association and other youth sport groups to develop appropriate educational materials and guidelines to prevent overuse injuries in sports, and that such materials be provided to coaches and physicians; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 19-92 as amended.*

ACTION: ADOPTED AS AMENDED

## RESOLUTION NO. 20-92

### Prevention of Injuries From Cheerleading

BY: W. JOEL PEDIGO, M.D.  
TN CHAPTER, AMERICAN ACADEMY OF PEDIATRICS  
TENNESSEE PEDIATRIC SOCIETY

Whereas, The physical activity required to perform as a cheerleader is equally as demanding as any sports activity; and

Whereas, The National Federation of State High School Associations has developed guidelines outlining which cheerleading stunts or maneuvers are acceptable, and which are considered dangerous and should be restricted; and

Whereas, In Tennessee elementary and high schools, cheerleading is not officially designated as a sport, but rather an extracurricular activity; and

Whereas, Since it is not a sport, the Tennessee Secondary School Athletic Association has no true authority or sanction over cheerleading, leaving the decision on whether to perform certain stunts in the hands of the cheerleading sponsors or school officials. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association, in cooperation with the Tennessee Secondary School Athletic Association and other concerned groups, encourage adherence to existing guidelines concerning safe cheerleading activities; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 20-92 as amended.*

ACTION: ADOPTED AS AMENDED

## RESOLUTION NO. 21-92

### Development of Uniform Sports Physical and History Forms for School Athletics

BY: W. JOEL PEDIGO, M.D.  
TN CHAPTER, AMERICAN ACADEMY OF PEDIATRICS  
TENNESSEE PEDIATRIC SOCIETY

Whereas, The Tennessee Secondary School Athletic Association (TSSAA) currently requires only the most cursory of physical examinations before allowing participation in various sports; and

Whereas, Currently, the TSSAA accepts a variety of forms from physicians, verifying physical fitness as a prerequisite for participation, some with very little detail; and

Whereas, The TSSAA does not require that a past history of injury or illness be taken at present; and

Whereas, The TSSAA has recognized its own shortcomings in this area and has willingly solicited the Tennessee Medical Association's involvement in correcting the problems; and

Whereas, The American Medical Association recommends that the preparticipation sports physical examination developed by the Sports Medicine Committee of the American Academy of Pediatrics be followed as the appropriate guideline. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association, through its Sports Medicine Committee or other appropriate body, develop a detailed Medical History Form, which includes an in-depth profile, to screen for possible problems with potential athletes; and be it further

**RESOLVED**, That the Tennessee Medical Association develop a detailed Sports Physical Form, which encourages physicians to go beyond the cursory examination currently used to determine the fitness of potential high school or elementary school athletes using the guidelines of the American Academy of Pediatrics; and be it further

**RESOLVED**, That Tennessee Medical Association developed Medical History Form and Sports Physical Form require signatures of parents and coaches, so that all parties are aware of the medical history and fitness of potential athletes; and be it further

**RESOLVED**, That the Tennessee Medical Association work closely with the Tennessee Secondary School Athletic Association to implement the use of the Tennessee Medical Association Medical History Form and/or Sports Physical Form; and be it further

**RESOLVED**, That the Tennessee Medical Association make its Medical History Forms and Sports Physical Forms available to all member physicians, and urge them to use them in screening potential athletes; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 21-92 as amended.*

**ACTION: ADOPTED AS AMENDED**

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## **RESOLUTION NO. 22-92**

### **Indigent Care Activity**

BY: CHARLES T. WOMACK III, M.D., DELEGATE  
PUTNAM COUNTY MEDICAL SOCIETY

Whereas, Thirteen percent of the American population are without health insurance and are unable to pay for medical care; and

Whereas, There is a tradition dating back to the time of Hippocrates of physicians aiding the poor without compensation; and

Whereas, Designated medical volunteers who provide free care to the indigent under the Community Health Agency Act of 1989 are considered Tennessee State Employees for professional malpractice purposes and thus have a layer of liability protection. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association (TMA) through the Board of Trustees continue to encourage its members via its local component medical societies to provide free care and reduced cost services to the indigent and that the TMA act as a resource for the development and enhancement of such activities; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE D—*recommended adoption of Resolution No. 22-82 as amended.*

**ACTION: ADOPTED AS AMENDED**

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## **RESOLUTION NO. 23-92**

### **Restructuring of the Impaired Physician Program**

BY: JOHN R. NELSON JR., M.D., CHAIRMAN  
TMA BOARD OF TRUSTEES

Whereas, As a result of Resolution No. 7-78, the Tennessee Medical Association's Impaired Physician Peer Review Committee has managed an Impaired Physician Program; and

Whereas, The Tennessee Medical Association in 1954 formed the Tennessee Medical Foundation, Inc. and has since then maintained it for a wide variety of educational, scientific, and charitable tax-exempt functions; and

Whereas, Several advantages would result if implementation of the Impaired Physician Program was under the jurisdiction of the Tennessee Medical Foundation, Inc., including the ability to accept tax-deductible contributions from individuals and other sources, along with increased immunity from liability for those who are part of the Impaired Physician Program and its operation. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association immediately transfer the Impaired Physician Program and its operation to the Tennessee Medical Foundation, Inc.

REFERENCE COMMITTEE C—*recommended adoption of Resolution No. 23-92.*

**ACTION: ADOPTED**

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## **RESOLUTION NO. 24-92**

### **Unilateral Termination of Provider Agreements**

BY: W.C.A. STERNBERGH JR., M.D., PRESIDENT  
CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Whereas, Numerous Chattanooga area patients and physicians have been adversely affected recently by third party payors (HMOs, PPOs, and other health insurers) unilaterally terminating participation agreements with physicians and even a health care facility; and

Whereas, These termination decisions have severely disrupted physician-patient relationships and potentially threaten the quality of care provided to such patients; and

Whereas, Ordinarily, physicians and patients are free to enter into or decline the physician-patient relationship, however, in this context, patients and physicians are at the mercy of third party payors; and

Whereas, Physicians should take a leadership role to protect health care quality and the physician-patient relationship, and work to require that third party payors take responsibility both



for informing patients about the business reasons for such terminations and giving adequate notice so that continued care arrangements can be made. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association draft and submit to the Tennessee General Assembly remedial legislation that would (1) require third party payors to provide affected patients and physicians with written notice before terminating provider agreements, (2) include a detailed explanation of the business rationale for the termination, and (3) provide such notice a minimum of 90 days prior to termination; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE A—*offered Substitute Resolution No. 17-92 to replace original Resolutions No. 17-92 and 24-92; recommended adoption of Substitute Resolution No. 17-92.*

**ACTION: NOT ADOPTED (Was replaced with Substitute Resolution No. 17-92 which was adopted as amended.)**

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## RESOLUTION NO. 25-92

### Revision of Constitution and Bylaws

BY: JOHN H. BURKHART, M.D., CHAIRMAN  
TMA COMMITTEE ON CONSTITUTION & BYLAWS

Whereas, The Tennessee Medical Association (TMA) has operated for many years under the structure of both a Constitution and Bylaws; and

Whereas, The Constitution establishes the fundamental framework of the organization and to amend it usually requires a higher majority vote than do Bylaw amendments; and

Whereas, The Bylaws supplement these fundamental provisions and are easier to amend; and

Whereas, most organizations and corporations in Tennessee combine the provisions of a Constitution and Bylaws into one document called "Bylaws"; and

Whereas, A single document is more practical because all provisions relating to one subject are in one place; and

Whereas, The present TMA Constitution requires a one-year layover period for any type of revision in the Constitution; and

Whereas, Both "Sturgis Standard Code of Parliamentary Procedure" and "Robert's Rules of Order" recommend that a Constitution, if used at all by organizations, be kept to a very brief framework, and allow the organization's Bylaws to be the working structure for the organization. Now, therefore be it

**RESOLVED**, That the Committee on Constitution and Bylaws draft the necessary provisions that would change the present structure of the Tennessee Medical Association by incorporating most of the provisions of the Constitution relating to organizational structure and function into the Bylaws whereby the Constitution then would only briefly set forth the organization's framework.

REFERENCE COMMITTEE ON AMENDMENTS TO THE CONSTITUTION AND BYLAWS—*recommended adoption of Resolution No. 25-92.*

**ACTION: ADOPTED**

## RESOLUTION NO. 27-92

### Rising Costs of Prescription Drugs

BY: JOSEPH L. WILLOUGHBY, M.D.  
TMA GERIATRICS COMMITTEE

Whereas, The Tennessee Medical Association's Geriatrics Committee has reviewed the 1991 report of the United States Senate Special Committee on Aging; and

Whereas, The Senate Committee's report documents that: (1) The costs of prescription drugs represent the highest out-of-pocket medical expenses for three out of four elderly persons; (2) From 1980-90, while the general inflation was 58%, prescription drug price inflation was 152%; and (3) During the first six months of 1991, the overall annualized general inflation rate was 3.3%, while the annualized prescription drug inflation was 11.2%. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association is deeply concerned about the escalating costs of prescription drugs, and especially about the impact of drug costs on the nation's elderly; and be it further

**RESOLVED**, That the Tennessee Medical Association appoint a Task Force on the Cost of Prescription Drugs to study drug pricing; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

REFERENCE COMMITTEE B—*recommended adoption of Resolution No. 27-92 as amended.*

**ACTION: ADOPTED AS AMENDED**

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## RESOLUTION NO. 28-92 (EMERGENCY RESOLUTION)

### West Tennessee Disaster Preparedness

BY: WILLIAM D. FALVEY, M.D., DELEGATE  
MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Whereas, Memphis, Tennessee is located within the high hazard area of the New Madrid Fault; and

Whereas, Between now and the year 2000, the probability of a major earthquake involving this fault is 50%; and

Whereas, A major earthquake could cause thousands of deaths and serious injuries. Now, therefore be it

**RESOLVED**, That the Tennessee Medical Association provide assistance to the citizens of West Tennessee in preparing for a major earthquake along the New Madrid Fault or any other catastrophe of similar magnitude; and be it further

**RESOLVED**, That the Tennessee Medical Association petition state and federal governments and military authorities to immediately develop and implement contingency plans which will provide immediate medical assistance to this region in such an event; and be it further

**RESOLVED**, That this resolution, unless reaffirmed or modified prior thereto, shall terminate after the regular annual meeting of the House of Delegates in 1999.

EMERGENCY RESOLUTION—*considered by the House of Delegates as a reference committee of the whole.*

**ACTION: ADOPTED AS AMENDED**

## DISTINGUISHED SERVICE AWARDS

*The Distinguished Service Award, established in 1964, is presented annually by the TMA Board of Trustees to member physicians in recognition of outstanding service or contributions to the advancement of medical science, the TMA, or the public welfare, whether civic or scientific in nature. At the TMA's 157th annual meeting in Nashville, TMA Board Chairman John R. Nelson Jr., M.D., presented three worthy recipients with this prestigious award.*



**William H. Frist, M.D.**, was nominated by the Nashville Academy of Medicine for his leadership effort to return the organ and tissue donor statement to the Tennessee driver's license.

In 1972, Tennessee became the first state in the nation to include a donor statement on the back of its driver's license, but in 1989, the Department of Safety removed the statement. According to Tennessee Donor Services, there has been a 30% decline in the number of organ donors nationally in recent years.

Recognizing a mistake and missed opportunity by the state, Dr. Frist organized a working committee of transplant professionals, including the Tennessee Transplant Society, to convince the state to return the donor statement. Dr. Frist formed the "Give Life to Your License Campaign" and asked supporters across the state to send letters of endorsement.

Working closely with the Department of Safety, Dr. Frist recently won approval to return the donor statement to the license, beginning in the fall of 1992. This is a tremendous step for the patients and families who wait daily for a transplant. Dr. Frist's efforts have also resulted in an increased awareness in Tennessee for the need for organ and tissue donation.

Dr. Frist, a native Nashvillian, received his medical degree from Harvard Medical School in 1978. Dr. Frist is currently the director of Heart and Heart/Lung Transplantation and surgical director at the Vanderbilt Multi-Organ Transplant Center.



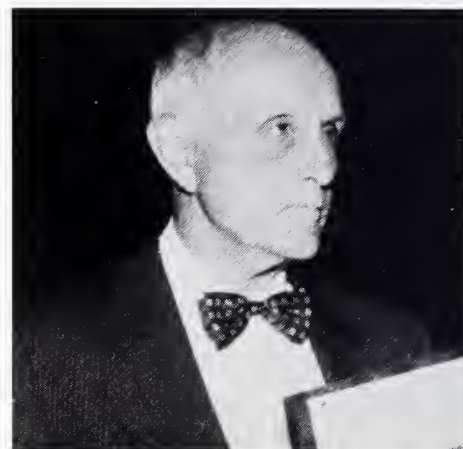
**Raymond Leslie Hargrove, M.D.**, was nominated by the Knoxville Academy of Medicine for his efforts to establish the Interfaith Health Clinic in Knoxville.

Dr. Hargrove was the driving force behind the establishment of the Interfaith Clinic, and has devoted countless hours to find volunteer physicians in various specialties to render care at the facility. The clinic treats members of the Knoxville community who are unable to pay for health care. Dr. Hargrove is the primary link between the physician community and the clinic, and through his efforts, the clinic is off to a tremendous start.

Born in Trinidad, Colorado, Dr. Hargrove received his medical degree from the University of Pennsylvania in 1961. In 1971, Dr. Hargrove moved to Knoxville, where he remains in the private practice of gastroenterology.

Dr. Hargrove is a member of the American College of Physicians, the American Society for Gastrointestinal Endoscopy, and the American (and Tennessee) Society of Internal Medicine. He has served the Knoxville Academy of Medicine as president (1988), member of the Board of Trustees (1977-80, 1984-87), member of the Judicial Council (1977-80), and executive vice-president.

He is a past president and current member of the Knoxville Academy of Medicine Foundation, Inc., a group that is raising funds to preserve the Academy building in Knoxville, which has been placed on the National Historic Register.



**Pope B. Holliday, M.D.**, was nominated by the Chattanooga-Hamilton County Medical Society for his devoted work for the area's "Room in the Inn," a shelter for homeless women.

Dr. Holliday has served for the past year as president of the board of the "Room in the Inn." This shelter provides accommodations for needy women and their children for up to 90 days, and gives them job training skills and career assistance to prepare for life after the shelter. The primary goal is to provide a safe haven for women who need and want assistance and preparation for better opportunities.

The shelter recently moved to a new facility that doubled the occupancy. Dr. Holliday directed the effort to locate, purchase, renovate, and furnish the new facility.

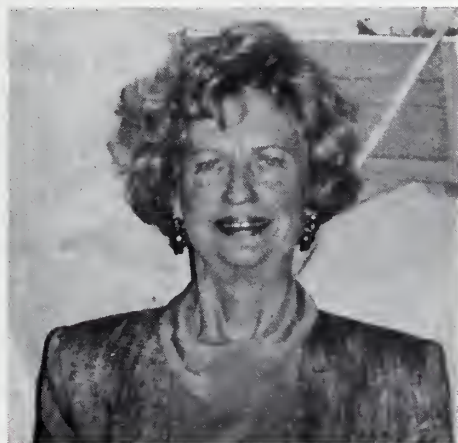
Dr. Holliday has also been instrumental in developing the Ronald McDonald House, which provides economical lodging and support for families of seriously ill hospitalized children. He is a board member of the Community Kitchen and Downtown YMCA and has participated in the Inner Faith Elderly Assistance Program.

Born in Athens, Georgia, Dr. Holliday, a board-certified pediatrician, received his medical degree from Harvard Medical School in 1945. His volunteer efforts have brought him the J.C. Penney "Golden Rule Award," the "Tennessee Volunteer of the Year Award" (from the TN Network of Volunteer Administrators), the "Governor's Outstanding Achievement Award," and a Volunteer Appreciation Letter from President Bush.



## COMMUNITY SERVICE AWARDS

*Each year since 1976, the Tennessee Medical Association has been privileged to present its Community Service Award to citizens who have made contributions to their community and state in the field of health care. At the TMA's 157th annual meeting in Nashville, TMA Board of Trustees Chairman John R. Nelson Jr., M.D., presented the awards to this year's recipients for their efforts to promote better general health and well-being in their respective communities.*

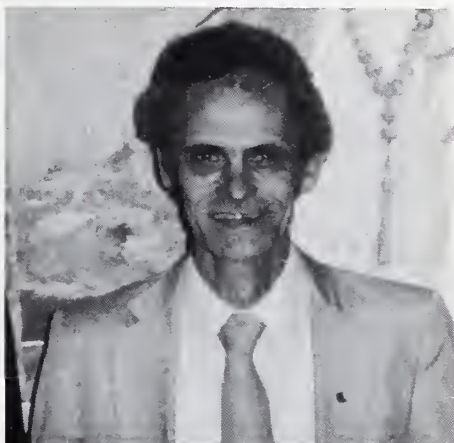


**Mrs. Barbara Robinson** was nominated by the Nashville Academy of Medicine for her tireless efforts on behalf of recovering addicts and their families.

Mrs. Robinson has been a leader in dealing with the family problems associated with alcoholics and drug abusers. She was the co-founder and co-director of the Family Program at Cumberland Heights Treatment Center, Nashville's first treatment center for chemical dependency. A family support group has met weekly in her home since 1979, and she and her husband conduct a "12-Step Class" at the First Presbyterian Church in Nashville.

Former Nashville Mayor Richard Fulton appointed her to his 1983 Study Committee on Alcohol and Drugs, and named her chairperson of a subcommittee that studied the severity of this problem among Nashville's youth. As a result of this two-year study, Mrs. Robinson was the founding president of Operation CAN (Chemical Awareness in Nashville), an organization created to address some of the urgent needs that were discovered by that study. Operation CAN educates key business and community leaders about the realities of and solutions to the dependency problem.

Mrs. Robinson also founded and coordinates a program for parents of chemically dependent children. The program provides education, assessment, intervention, and support, and includes an aftercare program to help the families deal with healthier methods of relating to recovering adolescents as they re-enter the family environment.



**Mr. Larry Self**, director of arguably the most successful ministry and charity program ever operated in Putnam County for the past 15 years—the Cookeville Rescue Mission—was nominated by the Putnam County Medical Society.

Mr. Self moved to Cookeville in 1972 to pastor a Baptist Church. During the mid-1970s, he and a close friend began serving meals to people in need, while ministering to the homeless. He soon realized the need for a place to shelter the homeless in Cookeville, and in 1976, the Cookeville Rescue Mission was founded under his leadership. Mr. Self served, unpaid, as director of the mission for eight years.

The Rescue Mission Board, comprised of community members, was established in 1980 and the mission moved to a permanent location in 1981, after several years of fundraising and renovation.

The Rescue Mission is open 24 hours a day, seven days a week, and provides food and shelter to individuals and families for up to three nights. In 1990, on a budget of \$58,000, all raised through donations, the mission provided lodging for 3,472 people, including 112 families, 155 children, and 87 single women. Over 10,000 meals were served, clothing was given to 455 individuals, and 138 families were given furniture.

Mr. Self has worked tirelessly to inspire community support for the mission, and in 1980, he was given the "Volunteer of the Year Award" by the Putnam County Coordinating Committee.



**Mr. W. Jack Walker**, well known for helping improve the lives and welfare of the citizens in his community, was nominated by the Knoxville Academy of Medicine.

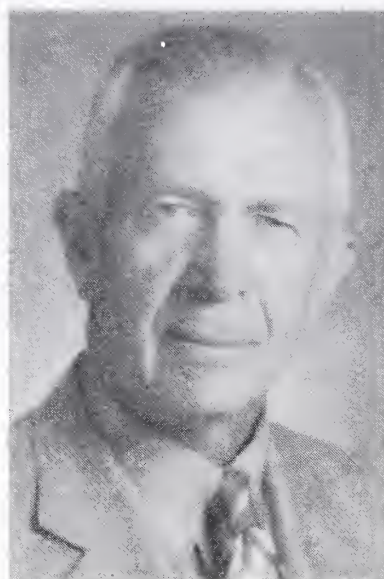
Mr. Walker has been quoted as saying, "I am not a golfer, fisherman, or involved in other hobbies. My enjoyment comes from serving on community boards and civic organizations, where I feel I can make a definite contribution."

At age 72, Mr. Walker continues to serve as a board member for the Greater Knoxville United Way, Shannondale Retirement and Health Care, Senior Citizens Home Assistance Services, Wellness Community of Knoxville, Child and Family Services, Salvation Army, Adopt-A-School Program, and St. Mary's Health Systems.

Mr. Walker was formerly president and board member of the Knoxville Chamber of Commerce, president of United Way of Knoxville, and has served on the boards of the American Diabetes Association, American Red Cross, Arthritis Foundation, East Tennessee Children's Hospital, and SHARE Southern Appalachian Food Bank. The list goes on and on.

Mr. Walker has received the American Red Cross "Outstanding Leadership Award," the Knoxville YMCA "Man of the Year Award," the United Way of Knoxville "Pacemaker Award," the National Conference of Christians and Jews "Brotherhood Award," the Knoxville Area Urban League "President's Award," the Arthritis Foundation "Distinguished Service Award," and an Honorary Doctorate in Humane Letters from Knoxville College.

## TENNESSEE'S OUTSTANDING PHYSICIAN OF THE YEAR



*The TMA House of Delegates elected Walter E. Boehm, M.D., of Chattanooga as the 1992 Outstanding Physician of the Year at the 157th TMA annual meeting. The speaker of the House, George H. Wood, M.D., presented the award to Charles Sternbergh, M.D., president of the Chattanooga-Hamilton County Medical Society, in Dr. Boehm's absence. Dr. Boehm was nominated by the Chattanooga-Hamilton County Medical Society.*

Dr. Boehm is a retired Chattanooga neurosurgeon whose practice spanned almost 40 years. He was nominated for the award for his lifelong dedication to improving medical care for children born with birth defects. His efforts culminated in the establishment of the Chattanooga Birth Defects Center in 1963, later renamed the Boehm Center.

Throughout his career, Dr. Boehm devoted a large portion of his medical and personal life to the success of the Center. Because of this commitment, the Center's name was changed to express appreciation for Dr. Boehm's work and support for hundreds of families in the surrounding Chattanooga area. Without his persistence and dedication, the Boehm Birth Defects Center would not have become a reality.

Charles Sternbergh, M.D., president of the Chattanooga-Hamilton County Medical Society, noted that Dr. Boehm "saw the need for assistance and support of children not born perfect. As a result, he began directing

efforts to provide them with much needed care. Today, the Boehm Birth Defects Center stands as a testimony to his compassionate concern."

A native of New York City, Dr. Boehm received his medical degree from New York University College of Medicine in 1939. He completed his internship and residency at Bellevue Hospital in 1941 and was a major in the U.S. Army in 1941-1945, completing his service as chief of the neurosurgical unit of the 117th Evacuation Hospital in the European theater.

Dr. Boehm was affiliated with the Neurosurgical Group of Chattanooga for 32 years. He is a Diplomate of the American Board of Neurological Surgery.

In addition to his membership in the Chattanooga-Hamilton County Medical Society, the Tennessee Medical Association, and the American Medical Association, Dr. Boehm is also a member of the Southern Neurosurgical Society, the American Academy of Neurological Surgeons, and the World Congress of Neurological Surgeons.

Among Dr. Boehm's honors are the Bradley County March of Dimes Distinguished Service Award in 1968, the TMA Distinguished Service Award in 1971, the Service to Mankind Award in 1972, and the Bronze Star for service beyond the call of duty during World War II.

Dr. Boehm, 78, and his wife, Mary, currently reside in Chattanooga and have eight children, two of whom are also Chattanooga physicians.



# 1992 TMA ANNUAL MEETING—HOUSE OF DELEGATES COMPOSITION

## FIRST SESSION: APRIL 9—SECOND SESSION APRIL 11

### EX-OFFICIO MEMBERS

OFFICERS		First Session	Second Session
President.....	Howard L. Salyer, M.D.	Present	Present
President-Elect.....	Charles Ed Allen, M.D.	Present	Present
Vice-President.....	Clark E. Julius, M.D.	Present	Present
Vice-President.....	R. Gary Samples, M.D.	Present	Present
Vice-President.....	Ronald A. Homra, M.D.	—	—

### BOARD OF TRUSTEES

R. Benton Adkins Jr., M.D.	Present	Present
Rex A. Amonette, M.D.	Present	Present
Robert E. Bowers, M.D.	Present	Present
Duane C. Budd, M.D.	Present	Present
Virgil H. Crowder Jr., M.D.	Present	Present
Hamel B. Eason, M.D.	Present	—
Dennis A. Higdon, M.D.	Present	Present
John W. Lamb, M.D.	Present	Present
John R. Nelson Jr., M.D.	Present	Present
Thurman L. Pedigo, M.D.	Present	Present
Montie E. Smith Jr., M.D.	—	—
George H. Wood, M.D.	Present	Present

### COUNCILORS

1st District.....	J. Lawrence Jayne Jr., M.D.	—	—
2nd District.....	Richard A. Brinner, M.D.	Present	Present
3rd District.....	Stephen S. Hawkins, M.D.	—	—
4th District.....	E. Morgan Dudley, M.D.	Present	—
5th District.....	Fred Ralston Jr., M.D.	Present	Present
6th District.....	Thomas C. Krueger, M.D.	—	—
7th District.....	Norman Henderson, M.D.	Present	Present
8th District.....	Michael A. McAdoo, M.D.	Present	Present
9th District.....	Kenneth R. Maloney, M.D.	—	—
10th District.....	Hugh Francis Jr., M.D.	Present	Present

### AMA DELEGATES

Thomas K. Ballard, M.D.	Present	Present
John S. Derryberry, M.D.	Present	Present
Allen S. Edmonson, M.D.	Present	Present
William D. Miller, M.D.	—	—
John B. Thomison, M.D.	Present	Present
George A. Zirkle Jr., M.D.	Present	Present

### PAST PRESIDENTS OF TMA

John H. Burkhart, M.D.	Present	Present
Francis H. Cole, M.D.	Present	Present
J. Kelley Avery, M.D.	Present	Present
David H. Turner, M.D.	Present	Present
James W. Hays, M.D.	Present	—
George W. Holcomb, M.D.	Present	—
Nat E. Hyder Jr., M.D.	Present	Present
Clarence R. Sanders, M.D.	Present	Present
James R. Royal, M.D.	Present	Present
James T. Galyon, M.D.	Present	Present

### STATE CHIEF MEDICAL OFFICER

Richard T. Light, M.D.	Present	Present
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### DELEGATES

#### EAST TENNESSEE GRAND DIVISION

County/Component Society		First Session	Second Session
BLOUNT.....	John J. Ingram III, M.D.	Present	Present
	Robert D. Proffitt, M.D.	Present	Present
BRADLEY.....	John W. Chambers, M.D.	Present	Present
	Hays Mitchell, M.D.	Present	Present
CAMPBELL.....	William L. Stallord, M.D.	Present	Present
CARTER.....	Robert E. Walter, M.D.	Present	Present
CHATTANOOGA-HAMILTON.....	Samuel L. Banks, M.D.	—	Present
	David R. Barnes, M.D.	Present	Present
	Robert M. Barnett III, M.D.	—	—
	Mary A. Duffy, M.D.	Present	—
	Michael S. Greer, M.D.	Present	Present
	Jack D. Hixson III, M.D.	—	—
	Dabney James, M.D.	Present	Present
	Phillip G. Pollock, M.D.	Present	—
	Martin H. Redish, M.D.	—	—
	Marilyn J. Rogers, M.D.	—	—
	W. C. A. Sternbergh Jr., M.D.	Present	Present
	Sam J. Williams III, M.D.	Present	Present
COCKE.....	Daniel Armistead, M.D.	—	—
CUMBERLAND.....	Robert Nichols, M.D.	Present	Present
GREENE.....	—	—	—
HAWKINS*.....	—	—	—
KNOXVILLE ACADEMY.....	John H. Acker, M.D.	—	—
	Caroline E. Cooley, M.D.	—	—
	John E. DePersio, M.D.	—	—
	Mary B. Duffy, M.D.	Present	Present
	David G. Gerkin, M.D.	Present	Present
	Douglas K. Hembree, M.D.	—	—
	William M. Law Jr., M.D.	Present	Present
	Jerome F. McKenzie, M.D.	Present	Present
	William R. McKissick, M.D.	Present	Present
	Robert N. Montgomery, M.D.	Present	Present
	Joseph B. Moon, M.D.	Present	Present
	William S. Muse Jr., M.D.	Present	Present
	Cecil D. Rowe, M.D.	—	—
	Joe S. Smith, M.D.	Present	Present
LAKEWAY.....	William J. Gutch III, M.D.	Present	Present
	Charles S. Scott, M.D.	Present	—
McMINN.....	Charles Richard Sharpe, M.D.	Present	—
MDNROE.....	Douglas Carpenter, M.D.	—	—
RDANE-ANDERSON.....	Robert R. Casey, M.D.	Present	Present
	Otis W. Jones, M.D.	—	—
	Dwight H. Willett, M.D.	—	Present
SCOTT.....	—	—	—
SEVIER.....	Vincent B. Tolley, M.D.	—	Present
SULLIVAN.....	Jere W. Ferguson, M.D.	Present	Present
	Don A. Flora, M.D.	—	Present
	David K. Garriott, M.D.	Present	Present
	Robert C. Patton, M.D.	Present	Present
	L. Dow Strader, M.D.	Present	Present
	Robert H. Williams, M.D.	Present	Present

#### County/Component Society

WASHINGTON-UNICDI-JOHNSON	Burgin E. Dossett Jr., M.D.	Present	Present
	Clarence E. Goulding Jr., M.D.	Present	Present
	Larry D. Hudson, M.D.	Present	—
	Ralph L. Mills, M.D.	Present	Present
	James M. Wilson, M.D.	Present	Present
YOUNG PHYSICIAN SECTION	Lytle Brown IV, M.D.	Present	—

#### MIDDLE TENNESSEE GRAND DIVISION

BEDFORD.....	Carl Stubblefield, M.D.	—	Present
BENTON-HUMPHREYS.....	Subhi D. Ali, M.D.	Present	Present
BUFFALO RIVER VALLEY.....	Parker D. Elrod, M.D.	Present	Present
COFFEE.....	Charles H. Webb, M.D.	Present	Present
DEKALB.....	Melvin L. Blevins, M.D.	—	—
DICKSON*.....	—	—	—
FENTRESS*.....	—	—	—
FRANKLIN.....	Dudley Clark Fort Jr., M.D.	—	—
GILES.....	Malcolm A. Cox Jr., M.D.	Present	Present
JACKSON.....	Gregory L. Byrne, M.D.	Present	Present
LAWRENCE.....	Lilia D. Mauricio, M.D.	Present	Present
LINCOLN.....	William M. Young, M.D.	—	—
MACON*.....	—	—	—
MARSHALL.....	—	—	—
MAURY.....	Thomas R. Duncan, M.D.	Present	Present
	Mary McKee, M.D.	Present	Present
MDNTGDMERY.....	T. J. Montgomery, M.D.	Present	Present
	William Joel Pedigo, M.D.	Present	Present
NASHVILLE ACADEMY.....	Arthur G. Bond Jr., M.D.	Present	Present
	H. Victor Braren, M.D.	Present	Present
	Glenn S. Buckspan, M.D.	Present	Present
	Reuben A. Bueno, M.D.	—	Present
	Deborah R. Doyle, M.D.	—	—
	B. Stephens Dudley, M.D.	Present	—
	Charles W. Eckstein, M.D.	Present	—
	William H. Frist, M.D.	Present	Present
	William M. Gavigan, M.D.	Present	Present
	Robert P. Graham Jr., M.D.	Present	Present
	William B. Harwell Jr., M.D.	Present	Present
	James M. High, M.D.	Present	Present
	Henry C. Howerton, M.D.	Present	Present
	Dana L. Latour, M.D.	—	Present
	Russell B. Lettwich, M.D.	Present	Present
	Malcolm R. Lewis, M.D.	Present	Present
	A. Brant Lipscomb Jr., M.D.	Present	Present
	David E. McKee, M.D.	Present	Present
	Cullen R. Merritt II, M.D.	—	—
	Michael P. Miller, M.D.	Present	Present
	Sarah H. Sell, M.D.	—	—
	Paul R. Stumb, M.D.	Present	Present
	K. Shannon Tilley, M.D.	Present	—
	John J. Warner, M.D.	Present	—
	Ralph E. Wesley, M.D.	—	—
DVERTON.....	H. Kendle Yates (Student Delegate)	Present	Present
PUTNAM.....	W. G. Quarles, M.D.	Present	Present
	Charles E. Jordan III, M.D.	Present	Present
	Charles T. Womack III, M.D.	Present	Present
ROBERTSON*.....	—	—	—
RUTHERFORD-STDNES RIVER ACADEMY.....	Warren McPherson, M.D.	Present	Present
	Olin O. Williams, M.D.	Present	Present
SMITH.....	Edgar K. Bratton, M.D.	Present	Present
SUMNER.....	Lloyd T. Brown, M.D.	—	—
	Ted W. Hill, M.D.	—	Present
WARREN.....	Wendell V. McAbee, M.D.	Present	Present
WHITE*.....	—	—	—
WILLIAMSON.....	Starling C. Evins, M.D.	Present	Present
	Joseph L. Willoughby, M.D.	Present	Present
WILSON.....	James C. Bradshaw Jr., M.D.	Present	Present
YOUNG PHYSICIAN SECTION.....	Robert W. Herring Jr., M.D.	Present	Present

#### WEST TENNESSEE GRAND DIVISION

CONSOLIDATED.....	James T. Craig Jr., M.D.	Present	Present
	James H. Donnell, M.D.	Present	Present
	James D. King, M.D.	Present	Present
	Oscar McCallum, M.D.	Present	Present
	Charles W. White, M.D.	Present	Present
	John D. Lay, M.D.	Present	Present
HARDIN.....	—	—	—
HENRY.....	—	—	—
MEMPHIS-SHELBY.....	Joe P. Anderson, M.D.	Present	Present
	Allen S. Boyd Jr., M.D.	Present	Present
	Thomas A. Curry, M.D.	Present	Present
	Arnold M. Drake, M.D.	Present	Present
	William D. Falvey, M.D.	Present	Present
	James Chris Fleming, M.D.	Present	Present
	Buford T. Harris, M.D.	Present	Present
	Roger L. Hiatt, M.D.	Present	—
	William L. Hickerson	Present	Present
	C. Eugene Jabbour, M.D.	Present	Present
	James Gibb Johnson, M.D.	Present	Present
	William Lee Moffatt III, M.D.	Present	—
	Lee R. Morisy, M.D.	Present	Present
	Alan Marc Nadel, M.D.	Present	Present
	Evelyn B. Dgle, M.D.	Present	Present
	Phil E. Drpet Jr., M.D.	Present	Present
	Phillip A. Pedigo, M.D.	Present	Present
	Wiley T. Robinson, M.D.	—	Present
	Eugene J. Spiotta Jr., M.D.	—	—
	William C. Threlkeld, M.D.	Present	Present
	Audrey W. Tuberville, M.D.	—	Present
	C. Ferrell Varner Jr., M.D.	—	—
	James Jeremiah Upshaw, M.D.	—	—
	Jesse C. Woodall Jr., M.D.	Present	Present
	Phillip E. Wright II, M.D.	Present	—
	Glenn D. Crater (Student Delegate)	Present	Present
	Arden J. Butler Jr., M.D.	—	—
	John Hale, M.D.	Present	Present
NORTHWEST.....	—	—	—
TIPTON.....	Warren A. Alexander, M.D.	Present	Present
YOUNG PHYSICIAN SECTION.....	Guy Voeller, M.D.	Present	Present
MEDICAL STUDENT SECTION.....	John Little	Present	Present

Ex-officio delegates serving in more than one capacity are listed only once. The above information was taken from attendance records signed by the delegates.

\*The following component society delegates were not eligible for seating due to failure to file the 1991 annual report as required by the TMA Constitution and Bylaws:

Hawkins, Dickson, Fentress, Macon, Robertson, White



# TMA Annual Meeting Highlights Nashville—April 1992



Outgoing TMA president Dr. Howard L. Salyer, Nashville (left) turning over gavel to incoming president Dr. Charles Ed Allen, Johnson City

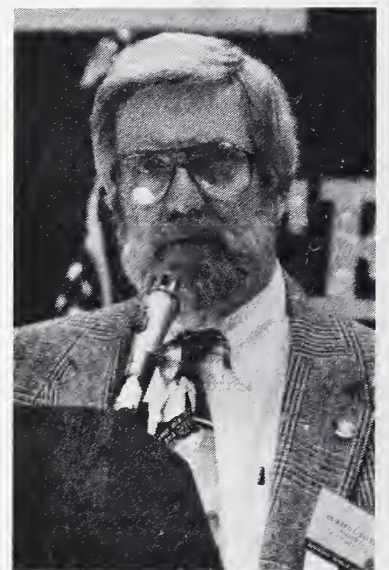


Retiring TMA Board members (front row) Drs. R. Benton Adkins, Nashville; John R. Nelson Jr., Knoxville; (back row) Robert E. Bowers, Chattanooga, Rex A. Amonette, Memphis; Hamel B. Eason, Memphis

TMA past presidents from left (first row) Drs. David H. Turner, Chattanooga, 1977; James T. Galyon, Memphis, 1987; William O. Miller, Knoxville, 1989; (second row) Nat E. Hyder Jr., Johnson City, 1983; George A. Zirkle Jr., Knoxville, 1980; Francis H. Cole, Memphis, 1969; (third row) Allen S. Edmonson, Memphis, 1981; John B. Thomison, Nashville, 1988; James R. Royal, Chattanooga, 1986; Hamel B. Eason, Memphis, 1990; George W. Holcomb Jr., Nashville, 1982; John B. Dorian, Memphis, 1978; (fourth row) Clarence R. Sanders, Gallatin, 1985; John H. Burkhart, Knoxville, 1965; Thomas K. Ballard, Jackson, 1984; E. Kent Carter, Kingsport, 1974; O. Morse Kochtitzky, Nashville, 1973; J. Paul Baird, Dyersburg, 1957; (top row) J. Kelley Avery, Nashville, 1975; James W. Hays, Nashville, 1979; Tom E. Nesbitt, Nashville, 1970.



Dr. and Mrs. John R. Nelson Jr., Dr. and Mrs. Howard L. Salyer, and Dr. and Mrs. Charles Ed Allen enjoying the annual President's Banquet



Dr. Howard L. Salyer addresses the House of Delegates





Medicine and Religion Breakfast guest speaker Dr. Charles S. Lowery addresses the crowd about stress prevention



IMPACT Luncheon guest speaker Mr. Brian Tringali discusses the national political climate



TMA Auxiliary is represented by (from left) Mary Frances Rule, Knoxville, incoming president; Dana Banks, Chattanooga, outgoing president; Johnnie Amonette, Memphis, immediate past-president; and Colleen Adams, AMA Auxiliary director



Mr. L. Hadley Williams, TMA chief executive officer, Dr. George H. Wood, Knoxville, speaker of the House, Dr. Thurman L. Pedigo, McMinnville, vice-speaker (back row), and the TMA Executive Committee (front row) prepare for the opening session of the house



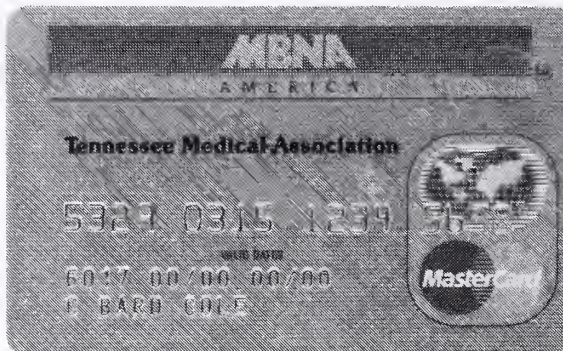
Dr. Percy Wootton, member of the AMA Board of Trustees, addresses the House of Delegates



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# REPORTS OF OFFICERS

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## Report of the President

HOWARD L. SALYER, M.D.

When I began to outline in this report the president's work over the past 12 months, I realized that only the past 136 presidents of the TMA could remotely have the feelings that I do. There is no way that you can put on paper all of the activities that the president is called upon to lead during the course of a year. I have attempted throughout the year in my President's Page in our *Journal* to give you my thoughts on many and various ideas as to our profession and its future. Those of you who know me well know it is not difficult for me to express my opinion, so thus this President's Report will be a series of my parting thoughts.

The work of the Tennessee Medical Association is not necessarily done by the president. You will find this delegate notebook full of the activities that have gone on this past year under the banner of the Tennessee Medical Association. The many committee members and their chairmen, Board of Trustees members and officers, section leaders, delegates to this House and to the AMA, are indeed the ones who deserve accolades and hearty pats on the back. The president is the one who is given the opportunity to lead this organization for a very short period of time. I firmly believe that this is one of the greatest opportunities a physician can be given during his career and I am truly appreciative of the confidence the House of Delegates demonstrated in me some two years ago.

My year is now winding down and there are so many highlights that I will cherish for the rest of my life. Included, but not limited in these highlights, are the many visits to our organization's backbone, the 51 component medical societies that make up our organization. In addition, working with the truly dedicated colleagues on the Board of Trustees, the unveiling and dedication of our new headquarters facility, and appearing before the public representing our illustrious organization must also be included as highlights of this past year. Being thrust into the limelight as the TMA president can be overwhelming and a humbling experience. When we are among our colleagues we are generally among friends and are comfortable. That is not the case when we are thrust out beyond the walls of our professional realm and into the public eye. Physicians and their representatives are targets and are open game. I have attempted to represent the views of our organization with distinction and steadfastness. Those who have held this title before me are fully aware of this tremendous responsibility. Those who will follow me in this office must continue to be strong, assertive, and forthright in our profession's purpose and its high ethics.

I firmly believe that an organization that stands still, falls behind. My perception of where we are is that we are on the move and we will better be. We must meet the needs of our members and represent the ideals of our profession at every forum available to us. My only regret is that we possibly mirror some of the organizations that have fallen trap to a declin-

ing interest among their membership. Our total membership remains constant while our young age group of potential members lags behind. Those of us who are at our peak or on the downhill side of our practice career can look back and say that "our forefathers of organized medicine saved us." I feel the present group of leaders is providing that same safety net. However, as I traveled and talked to many of you this year, I felt that our leaders of the future generation may not sense the need for a strong, single, united voice until it is too late. I personally can tell you that our opponents sense weakness and cherish the thought of an unstable house of medicine. We must enroll all eligible physicians in this state in our army and put them to work. To simply belong is not enough. No amount of money, no amount of hired staff, and no amount of hard work by a small percentage of volunteers can supplant the need for total involvement by those who benefit from being "a physician licensed to practice medicine in the state of Tennessee."

Our 138th president, Dr. Charles Ed Allen, has taken membership on as one of his prime platforms during his short term of office. I encourage you to heed his message and to support him in carrying out the objectives laid out by this House of Delegates. Our Association is a total team effort. It has been my personal privilege and honor to lead that team during this past year. Let's not forget that an important cog in that team is the headquarters staff. I have been truly impressed and have a greater appreciation for their dedication, their ability, and their wholehearted support of whom they represent. For their professionalism and wisdom we are indebted and are grateful.

I trust my efforts on your behalf have been beneficial and we have moved forward. I thank you for the opportunity of being your leader.

REFERENCE COMMITTEE C—*reviewed the report of the president and recommended that it be filed.*

ACTION: FILED

## Report of the Board of Trustees

JOHN R. NELSON JR, M.D., *Chairman*

Management of the day-to-day affairs of the Tennessee Medical Association is vested by the Constitution and Bylaws in the Board of Trustees. Full authority rests with the Board between sessions of this House of Delegates to oversee the financial, property management, recordkeeping and all demands of an organization as required by state and federal law. Such responsibility, due to a number of factors, has been on the increase annually for a number of years.

In order to carry out its delegated responsibilities, the Board conducted four regular quarterly meetings and two Executive Committee meetings, during which 152 separate items of business related to the operation of the Association were considered and acted upon. As is customary, highlights of each quarterly meeting are reported in the *Journal of the Tennessee Medical Association* in order for all members to be aware of the Board actions.

Although the reports of the President, Secretary-Treasurer, Editor, Executive Director, and committee chairmen detail specific activities related to each office, the Board has been very much involved in the actions and activities of each. Matters pertaining to general administration, finances, long range planning, membership, annual meeting, AMA conventions, *Journal* advertising and publication, exhibits, and legislation were considered and appropriate action was taken during regular meetings of the Board and/or Executive Committee.

The following is a condensed outline of many of the items brought before the Board and/or Executive Committee and acted upon during the past 12 months.

## Board and Executive Committee Actions

### *Second Quarter Board Meeting—April 10 and 13, 1991*

#### The Board:

- Appointed members to the following committees of the Board: Executive Committee, Finance Committee, Publications Committee, Committee on Exhibits, Committee on Long Range Planning, Tennessee Medicare Access Program (TMAP) Committee, Annual Meeting Committee, and Travel Committee.

- Adopted positions on resolutions submitted to the TMA House of Delegates.

- Received a report from the Medical Director of the TMA Impaired Physician Program and expressed admiration, appreciation, and total support of the medical director, the Impaired Physician Committee and the entire program.

- Recognized Board members Drs. Benton Adkins Jr., Nashville, and Dennis A. Higdon, Memphis, for their active military service during the Persian Gulf War.

- Appointed Dr. Dabney James, Chattanooga, to the Committee on Hospitals.

- Appointed Dr. Murray W. Smith, Nashville, to the Impaired Physician Peer Review Committee.

- Approved recommendations by the Impaired Physician Peer Review Committee to implement a family health committee to help the codependent family.

- Received a report on the Tennessee Medicare Access Program and its physician and patient enrollment figures.

- Nominated Drs. Edgar S. Scott Jr., Chattanooga, Alvin H. Meyer Jr., Donelson, and David L. Cunningham, Memphis, for consideration of appointment to the state Board of Medical Examiners.

- Nominated Drs. J. Kelley Avery, Nashville, David H. Horowitz, Nashville, and Charles E. Jordan III, Cookeville, for consideration of appointment to the state Board for Licensing Health Care Facilities.

- Endorsed a Bachelor of Science in Nursing (BSN) degree program at Cumberland University.

- Received a report from Mr. L. Hadley Williams, TMA executive director, on the sale of the 112 Louise Avenue property and reviewed a copy of the Seller's Settlement Sheet.

- Ratified an amendment to the TMA Charter regarding the change of address of the TMA headquarters office building.

- Accepted the 1990 TMA audit as presented by Dr. R. Benton Adkins Jr., chairman of the Finance Committee.

- Accepted the 1990 audit for TMA Physician Services, Inc., as reported by Mr. L. Hadley Williams, executive director.

- Elected Drs. John R. Nelson Jr., Knoxville, as chairman of the Board and John W. Lamb, Nashville, as vice-chairman. Reelected Dr. R. Benton Adkins Jr., Nashville, as secretary-treasurer, and Mr. L. Hadley Williams as assistant secretary-treasurer.

### *Executive Committee Meeting—May 22, 1991*

#### The Executive Committee:

- Reviewed 1991 resolutions referred by the House of Delegates in April.

- Elected Drs. William O. Miller, Knoxville, Hamel B. Eason, Memphis, John B. Thomison, Nashville, R. Benton Adkins Jr., Nashville, and Howard L. Salyer, Nashville, to serve as directors of TMA Physician Services, Inc.

- Elected the following officers of TMA Physician Services, Inc.: Dr. Howard L. Salyer, Nashville, president; Mr. L. Hadley Williams, Nashville, executive vice-president; and Dr. R. Benton Adkins Jr., Nashville, secretary-treasurer.

- Appointed Drs. Charles B. Thorne, Nashville, Luthur A. Beazley, Donelson, R. Benton Adkins Jr., Nashville, William C. Anderson, Nashville, and Murray Smith, Nashville, to serve as directors of the Impaired Physician Loan Fund.

- Agreed to empower the executive director to proceed with negotiations on a lease proposal for third floor space at the new headquarters building.

### *Third Quarter Board Meeting—July 13-14, 1991*

#### The Board:

- Received a report from the Sports Medicine Committee regarding plans to develop a "pre-participation physical form" for the TSSAA. Agreed to restructure the Sports Medicine Committee, and appointed Drs. Douglas C. Cobble, Greeneville, and Thomas C. Whitfield Jr., Nashville, as additional members of the committee.

- Received a report from the Scientific Affairs Committee regarding increased standards for TMA's joint sponsorship of CME activities; approved the expansion of the Scientific Affairs Committee by the addition of six physician consultants.

- Referred to the Legislative Committee a request from the Chattanooga-Hamilton County Medical Society for TMA's assistance in addressing the issue of third party payor reduction of fees of orthopaedic physicians in the Chattanooga area, for services provided to patients who are covered under workers' compensation.

- Received a report from the Interprofessional Liaison Committee regarding a meeting held in June which focused on possible abuse in prescribing patterns of anorectic drugs.

- Endorsed the effort to restore the organ donor statement to the back of the Tennessee driver's license.

- Appointed Dr. Piyush N. Joshi, Johnson City, to the Organ Procurement Committee.

- Adopted a policy encouraging all Tennessee hospitals to work with HCFA to assess the potential for anatomical donations within their institutions for the purpose of internal professional education.

- Approved a request from the CME Committee for TMA to sponsor a statewide conference on CME, and to request the cosponsorship of the Tennessee Hospital Association.



- Approved a revision to the CME Accreditation Appeals Policy.

- Received a report from the Work Group on Focused CME and approved their recommendation to develop the TMA Clinical Skills Enhancement Program, to be administered by a subcommittee of the CME Committee.

- Nominated Dr. William F. Mackey, Memphis, for consideration of appointment to the state Health Care Facilities Penalties Panel.

- Renominated Dr. Joseph L. Willoughby, Franklin, and nominated Drs. Charles W. Eckstein, Nashville, and Richard G. Lane, Franklin, for consideration of appointment to the state Board of Nursing Home Administrators.

- Nominated Dr. Maurice (Buddy) Rawlings, Chattanooga, for consideration of appointment to the state Cancer Reporting Committee.

- Adopted the current policy of the AMA in regard to the requirements for the performance of laser surgery.

- Received an extensive report on the notice of proposed rulemaking on Medicare physician payment reform (RBRVS). Agreed to notify all TMA members immediately concerning the drastic 16% reduction in the conversion factor in the proposed rule and urge them to write to their Tennessee congressmen and senators to object to the proposal.

- Agreed to eliminate the requirement for a physician representative of each medical specialty society to be present at the September meeting of the Scientific Affairs Committee as a condition of meeting in conjunction with the TMA annual meeting.

- Agreed to require all organizations meeting in conjunction with the TMA annual meeting to send information in advance to their members regarding TMA's \$75 registration fee for nonmember physicians who practice in Tennessee and attend the meeting.

- Agreed that the Annual Meeting Committee should continue to pursue discussion with Chattanooga representatives to evaluate the feasibility of conducting a TMA annual meeting in Chattanooga in 1996 (per Resolution No. 28-91).

- Reviewed and approved an outline of peer review procedures for TMA, modeled after the AMA's Peer Review Guidebook. Model sanctions and appellate procedures were also given initial approval, subject to possible further study by the Executive Committee.

- Agreed to cosponsor the Tennessee Bar Association Health Law Seminar.

- Agreed to establish a Membership Committee as a special committee of the TMA Board of Trustees; approved a proposed membership composition of the committee with one member from each of the four major metropolitan medical societies, one from each of the three grand divisions of the state, and two at-large.

#### *Fourth Quarter Board Meeting—October 13, 1991*

##### The Board:

- Received a report on the establishment of a Clinical Skills Enhancement Subcommittee of the CME Committee.

- Appointed Drs. Evelyn B. Ogle, Memphis, John W. Lamb, Nashville, David G. Gerkin, Knoxville, Ronald H. Homra, Jackson, Joel R. Locke, Franklin, Robert C. Patton, Kingsport, William M. Rodney, Memphis, and John E. Chapman, Nashville, as members of the newly formed Membership Committee. Agreed to fill the Chattanooga position at a later date.

- Appointed Drs. M. Craig Ferrell, Franklin, Blair D. Erb,

Jackson, and Michael H. Hartsell, Greeneville, to the Sports Medicine Committee.

- Received an update on the public service ads being broadcast on the Tennessee Radio Network and the newly released CARE program video.

- Adopted an 11-point policy recommendation on HIV from the Committee on HIV Infection and AIDS.

- Approved recommendations of the Tennessee Medicare Access Program Committee to scale back TMAP due to state budget cutbacks, and to maintain those physicians and patients who are already in the program.

- Requested the state's PRO to inform physicians being reviewed, when action is taken, of their reviewer's credentials.

- Received a report on federal requirements effective Jan. 1, 1992 for state Medicaid programs to implement both prospective and retrospective Drug Utilization Review (DUR).

- Adopted several final procedural details to complete TMA's Peer Review Guidebook.

- Approved TMA's formal involvement in the Tennessee Consortium on Patient Self-Determination. The consortium was organized to develop a manual for compliance with the Patient Self-Determination Act.

- Agreed to renominate Dr. Lewis F. Cosby, Johnson City, for consideration of appointment to the state Crippled Children's Advisory Committee.

- Agreed to nominate Dr. James N. Etteldorf, Memphis, for consideration of appointment to the state Poison Control Network.

#### *First Quarter Board Meeting—January 18-19, 1992*

##### The Board:

- Received a report that TMA has again been recognized as an intrastate accreditor of sponsors of CME for a period of four years (the maximum period awarded).

- Agreed to petition the Board of Directors of Mid-South Foundation for Medical Care, Inc. to reconsider their response regarding TMA's request to inform physicians being reviewed, when action is taken, of their reviewer's credentials.

- Voted to elevate Mr. Don Alexander to the position of executive director and Mr. L. Hadley Williams to chief executive officer, effective immediately.

- Approved a three-year phase-in time period and three-year employment agreements for Mr. Alexander and Mr. Williams. Appointed a committee of the Board, comprised of the president, chairman of the Board, and secretary-treasurer, to negotiate the agreements, designating the president to sign on behalf of TMA; and adopted a resolution of the Board regarding these actions.

- Appointed Dr. Jill M. Sumfest to fill the vacancy from Chattanooga on the Membership Committee.

- Appointed the following nominating committee representing each grand division of the state: *East Tennessee*: Drs. Nat E. Hyder Jr., Johnson City, David G. Gerkin, Knoxville, Sam J. Williams III, Chattanooga. *Middle Tennessee*: Drs. William B. Harwell, Nashville, Will G. Quarles Jr., Livingston, William M. Young, Fayetteville. *West Tennessee*: Drs. James H. Donnell, Jackson, John D. Lay, Savannah, J. Chris Fleming, Memphis.

- Nominated and approved members to serve on each of the standing and special committees, TMA-SEF Board, and IMPACT Board.

- Renominated Dr. William F. Mackey, Memphis, for consideration of appointment to the state Health Care Facilities Penalties Panel.

- Nominated Drs. Michael E. Niedermeyer, Nashville, B. Daniel Harnsberger, Chattanooga, and Charles P. Cole, Johnson City, for consideration of appointment to the state Board of Medical Examiners Council on Respiratory Care.

- Agreed to draft a resolution to the House of Delegates in April calling for a one-year extension of the existing CARE Program (Resolution No. 7-89).

- Received a report that the final Peer Review document was mailed to all component medical societies in December, 1991.

- Extended commendations from the Board to Mr. Marc Overlock, general counsel, for his work on the Peer Review document.

- Voted to endorse the concept of pursuing the option to restructure the Impaired Physician Program under the Tennessee Medical Foundation in order to provide a tax-exempt structure for charitable donations.

- Agreed that the Tennessee Medical Foundation should structure the Charter Amendment in a manner to maintain the TMA Board's ability to appoint the directors of the Foundation.

- Received a status report regarding the official closing of the Tennessee Medicare Access Program.

- Voted to award 1992 Distinguished Service Awards to Drs. William H. Frist, Nashville, R. Leslie Hargrove, Knoxville, and Pope B. Holliday Jr., Chattanooga.

- Accepted the recommendations of the Communications and Public Service Committee to award the 1992 Community Service Awards to Mrs. Barbara Robinson, Nashville, Mr. Larry Self, Cookeville, and Mr. W. Jack Walker, Knoxville.

- Reviewed 1985 resolutions scheduled to sunset in April along with staff recommendations for each. Voted to reintroduce Resolutions No. 2-85; 9-85; 10-85; 11-85; 12-85; 13-85; 14-85; 16-85; 17-85; 18-85; 22-85; and 25-85. The Board also voted to allow all remaining resolutions adopted in 1985 to sunset.

- Agreed to endorse the candidacy of Dr. John E. Chapman, Nashville, for reelection to the AMA Council on Medical Education.

- Agreed to endorse the candidacy of Mr. Glenn Crater, UT Memphis Medical School student, for election to the AMA Medical Student Section Governing Council.

- Appointed a five-member Ad Hoc Committee of the Board to examine TMA's comprehensive medical insurance plan and its carrier, and function as a complaint monitor.

- Approved a request from Dr. Richard G. Lane, Franklin, chairman of the TMA Geriatrics Committee, to serve as TMA's representative on the newly formed Tennessee Eldercare Coalition.

- Reappointed Mr. Charles L. Cornelius Jr., as TMA legal counsel, and Bellenfant & Miles, P.C., CPAs, as TMA auditor for 1992.

#### *Executive Committee Meeting—February 26, 1992*

The Executive Committee:

- Approved re-drafts of the following 1985 resolutions as amended and agreed to reintroduce them to the House of Delegates: No. 1-92 "Mandatory Acceptance of Assignment for Insurance" (Reaffirmation of No. 2-85); No. 2-92 "Hepatitis Vaccination of Medical Students" (Reaffirmation of No. 9-85); No. 3-92 "Statewide Poison Control" (Reaffirmation of No. 10-85); No. 4-92 "Ban of Promotional Drinking" (Reaffirmation of No. 11-85); No. 5-92 "Opposition to Boxing as a Sport" (Reaffirmation of No. 12-85); No. 6-92 "Opposition to

Federally Funded Health Planning" (Reaffirmation of No. 13-85); No. 7-92 "Reimbursement for Diagnostic Studies Identified as Surgical Procedures" (Reaffirmation of No. 14-85); No. 8-92 "The Living Will" (Reaffirmation of No. 16-85); No. 9-92 "Tax on Professional Medical Services" (Reaffirmation of No. 17-85); No. 10-92 "Government's Response to Resolutions" (Reaffirmation of No. 18-85); No. 11-92 "Ethical Standards" (Reaffirmation of No. 22-85); No. 12-92 "Control of Over-the-Counter Diet Pills" (Reaffirmation of No. 25-85).

- Approved a draft of Resolution No. 13-92 "One Year Extension of Resolution No. 7-89."

- Reviewed proposed revisions to the Tennessee Medical Foundation's Charter and empowered staff to draft two resolutions in order to execute the transfer of the Impaired Physician Program to the Tennessee Medical Foundation.

- Voted to submit a letter of support as requested by the AMA for the purpose of obtaining an Advisory Opinion from the Federal Trade Commission regarding peer review procedures for state and county medical societies in order to allow for the review of physicians' fees, thus giving the profession greater powers of self-regulation.

- Appointed Dr. Arnold M. Drake, Memphis, to the Medical Practice Committee.

- Appointed Drs. Charles Ed Allen, Johnson City, Duane C. Budd, Johnson City, Hamel B. Eason, Memphis, Thurman L. Pedigo, McMinnville, Howard L. Salyer, Nashville, to serve as members of the Ad Hoc Committee of the Board to monitor TMA's insurance plans and function as a complaint monitor.

- Received a report that Dr. Charles Ed Allen's nomination as a candidate for the Council on Medical Education was accepted by the AMA Board of Trustees.

#### **Actions Taken on 1991 Resolutions**

In addition to the above items of concern, the Board responded to those matters referred to it by the House of Delegates last April. As required in Constitutional Amendment No. 4-88, the Board hereby reports to the House actions taken on resolutions acted upon by the House of Delegates in April 1991:

##### *Resolution No. 1-91*

*Subject:* Protective Head Gear for Horseback Riders. (Reaffirmation of Resolution No. 1-84)

*Action:* This resolution which was adopted reaffirms Resolution No. 1-84 that called for an educational approach to be taken to promote the wearing of head gear in rodeos and other equestrian events. Copies of this resolution were mailed to all groups indicated in the resolve and, in addition, after communicating with the central office of the Tennessee Walking Horse Association, copies of the resolution were mailed to selected physicians across the state who own and show walking horses asking that they promote the wearing of helmets in all equestrian events.

##### *Resolution No. 2-91*

*Subject:* TMA Opposition to Mandatory Second Surgical Opinions. (Reaffirmation of Resolution No. 8-84)

*Action:* As adopted, opposition to secondary surgical opinions continues to be the position of the TMA. The Committee on Legislation as well as other committees dealing with Medicare, Medicaid, and other third party payors continue to be guided by this policy.

##### *Resolution No. 3-91*

*Subject:* Penalties for Hunting while Under the Influence of



Alcohol or Drugs. Called for the Association to support passage of a state law imposing penalties on hunters judged to be hunting while under the influence of alcohol or drugs. (Reaffirmation of Resolution No. 3-84).

*Action:* TMA staff, in consultation with the Chairman of the Legislative Committee, received an informal determination from legislative fiscal analysts that the cost of passage of such a measure would be significant due to the increased cost of incarceration involved for such offenders. Therefore, legislation was not introduced by TMA specifically addressing this issue. Staff will lend support to any legislation which might be introduced in the future which speaks to this topic.

#### *Resolution No. 4-91*

*Subject:* Physician Supervision of Nurse Practitioners. (Reaffirmation of Resolution No. 10-84)

*Action:* Resolution No. 10-84, as adopted, continues TMA's position that the phrase "as often as medically indicated" as stated in the rules and regulations of the Board of Medical Examiners regarding supervision of nurse practitioners be defined as daily visits by the physician when the illnesses are acute, such as febrile illnesses in children. The Board of Medical Examiners as well as the state Primary Care Advisory Board must provide site approval for nurse practitioners where prescribing privileges have been approved. TMA's policy was adopted with the intention of establishing the standard of care concerning physician supervision of nurse practitioners.

#### *Resolution No. 5-91*

*Subject:* Insurance Coverage. TMA is directed to work closely with patients, patient groups, insurance groups, and industrial groups to publicize the endorsed policies continuing the following concepts: (1) coverage of outpatient procedures in a physician's office at an equal or higher rate than an emergency room or inpatient setting, (2) a comprehensive approach with copayment, (3) encourage lower deductibles and copayments for office-based care, (4) encourage preventative health programs, and (5) encourage ambulatory surgery in a hospital or physician's office. (Reaffirmation of Resolution No. 11-84)

*Action:* TMA has continued to advance these policies, particularly in the legislative arena and with Medicare and Medicaid. TMA's success in removing the Certificate of Need requirement for ambulatory surgical treatment centers has increased access to outpatient surgery.

#### *Resolution No. 6-91*

*Subject:* Cost Control of Medical Services. Placed the Association on record in opposition to discriminatory taxes aimed at the medical profession that tend to increase the cost of medical care. (Reaffirmation of Resolution No. 15-84)

*Action:* TMA legislative staff, under direction of the Legislative Committee, has offered strong opposition to all tax measures which single out the medical profession. Among these discriminatory tactics are: the proposed \$250 license assessment to finance TCHIP, extension of the sales tax to medical services by removing the exemption for medical care from the Sales Tax Act, imposition of a gross receipts tax upon physician providers in order to balance the Medicaid budget, etc.

#### *Resolution No. 7-91*

*Subject:* Malpractice Insurance. This resolution commended State Volunteer Mutual Insurance Company for the manner in which it has provided professional liability insurance for Ten-

nessee physicians and urged TMA members to continue to provide backing and support of SVMIC. It also called upon TMA to continue its efforts to educate TMA members in matters related to malpractice insurance. (Reaffirmation of Resolution No. 18-84)

*Action:* SVMIC was informed of the adoption of this resolution commending the company. TMA began endorsing annual seminars held across the state designed to educate physician office personnel in areas of risk management. Annual Loss Prevention seminars produced by SVMIC for policyholders are also endorsed by TMA.

#### *Resolution No. 8-91*

*Subject:* Swimming Safety. This resolution called for the TMA to support barrier fencing around residential pools, early water safety, and water awareness programs. Further, it called for TMA to petition similar national support from the American Academy of Pediatrics and the AMA.

*Action:* The American Academy of Pediatrics was sent a copy of TMA Resolution No. 8-91 asking for its support, and the TMA delegation to the AMA introduced a resolution in the AMA House of Delegates with an additional "RESOLVED" that asked the AMA to encourage swimming pool manufacturers and pool chemical suppliers to distribute educational materials that promote swimming and water safety.

#### *Resolution No. 9-91*

*Subject:* Malpractice Protection for Physicians Treating Medicaid Patients. This resolution required the Association to introduce and seek passage of legislation treating physicians as state employees for liability purposes when such physicians are rendering care to Medicaid patients.

*Action:* TMA staff, acting at the direction of the Legislative Committee, drafted and introduced legislation in the 1992 Legislative Session to effectuate the intent of the resolution. TMA's bill is sponsored in the Senate by Senator Pete Springer and in the House by Representative John Chiles. Both bills were referred to the Judiciary Committee of the respective Houses where, due to the overwhelming strength of the trial lawyer community, passage is highly in doubt. TMA lobbyists are working to have these bills reported favorably by the committees and will continue with such efforts.

#### *Resolution No. 11-91*

*Subject:* Inequitable Medicaid Payment for Obstetrical Services. TMA was directed to seek to change Medicaid policy to reimburse all physicians providing obstetrical care at the same rate.

*Action:* As of July, 1991, Medicaid payments for obstetrical services were increased substantially, to a global fee of \$1,100 for a vaginal delivery and \$1,300 for cesarean section. There is no longer a specialty differential.

#### *Resolution No. 12-91*

*Subject:* Use of Corporal Punishment in Tennessee Schools. Adoption of this measure states TMA's opposition to the use of corporal punishment in Tennessee schools. TMA is directed to strongly urge the General Assembly to repeal the corporal punishment statute, to assist educators in developing alternative methods of discipline, and to encourage component societies to address these issues with their local school districts.

*Action:* TMA wrote all members of the General Assembly, enclosing a copy of this resolution, and strongly urged their support of it. Copies of the resolution were sent to the Commissioner of Education, the Tennessee Education Association,

and the Tennessee School Board Association, as well as TMA component society presidents.

*Resolution No. 15-91*

*Subject:* Donation of Unserved Food. This resolution called upon TMA to investigate the possibility of donating unused food from TMA's annual conventions to an appropriate organization for distribution and use by homeless individuals.

*Action:* In support of this resolution, TMA made arrangements before the close of the April, 1991 annual meeting to donate over 100 unserved box lunches to a local Memphis charitable organization. Similar arrangements are being made for TMA's 157th annual meeting. TMA staff continues to review "Fighting Hunger with Prepared and Perishable Food: A Technical Assistance Manual," published by the UPS Foundation. Further work remains to be done in exploring considerations of liability, health regulations, appropriate agency recipients, and meeting facility contract provisions.

*Resolution No. 16-91*

*Subject:* Human Immunodeficiency Virus (HIV) Infection Reporting. This resolution called for TMA to urgently request the Department of Health to declare HIV infection a reportable disease while protecting the confidentiality and for TMA to urge high risk individuals to be tested.

*Action:* TMA informed officials of the Tennessee Department of Health of this resolution and of TMA's desire for HIV infection to be a reportable disease in Tennessee. The Department subsequently developed a comprehensive plan for mandatory reporting of HIV infected persons to the Department by health care personnel. In the fall of 1991, the Department conducted a series of three public hearings on the plan, and implemented the plan on Jan. 1, 1992.

*Resolution No. 18-91*

*Subject:* Training Criteria for New Procedures. This resolution places TMA in support of the position that training criteria for new procedures be the exclusive province of the hospital or ambulatory surgical treatment center medical staff and that Medicare and other third party payors should not seek to impose arbitrary credentialing requirements.

*Action:* The Committee on Governmental Medical Services has repeatedly addressed this issue with the Equicor/Medicare medical director. Further, with regard to procedures such as laparoscopic cholecystectomy, many carriers continue to express concerns that physicians perform a certain number of procedures prior to becoming eligible for reimbursement as a quality control.

*Resolution No. 19-91*

*Subject:* TMA Funding of Medical Students to AMA Conventions. This resolution called for AMA to budget a stipend of not more than \$2,000 for each of the component medical societies with active medical student sections to provide opportunities for medical students to attend AMA meetings. The resolution also outlined the process that medical students would apply for such stipends as well as setting the criteria that students would only be eligible if 50% of the student body of their particular medical school were members of the TMA.

*Action:* To date, no medical school student body has reached the 50% requirement, thus these funds have yet to be expended. However, there are funds in the TMA budget to cover such expense once the criteria is met and the application process is completed.

*Resolution No. 20-91*

*Subject:* Home Health Nursing Care Management. Upon adoption, TMA was instructed to request that fees for appropriate case management of homebound nursing patients be appropriately reimbursed for Tennessee physicians.

*Action:* As directed, copies of this resolution were distributed to the medical director of Equicor/Medicare, Tennessee Medicaid, and Blue Cross.

*Resolution No. 21-91*

*Subject:* Laser Surgery Policy. This resolution, which was referred to the Board of Trustees, called upon TMA to adopt policy stating that only practitioners licensed to practice medicine and surgery should be permitted to perform laser surgery and called upon TMA to petition the Tennessee General Assembly, if and when necessary, to limit laser surgery only to individuals licensed to practice medicine and surgery.

*Action:* The TMA Board of Trustees, following deliberations regarding the subject matter of this resolution, directed the Board member who acts as liaison with the Tennessee Academy of Ophthalmology to discuss the resolution with the Academy leadership to gain their perspectives on the matter. Following such dialogue the Board agreed to be prepared to act in the General Assembly should legislation be introduced to permit laser surgery by individuals other than those licensed to practice medicine and surgery in Tennessee.

*Resolution No. 22-91*

*Subject:* Recourse by Physicians in Appeals of Unfavorable Audit and Sanctions by Equicor. This resolution called for TMA to support the concept that any physician should be able to have a fair hearing before the Medicare intermediary and should have recourse appeal to federal courts regardless of the amounts of fines levied by the intermediary. Presently the law restricts appeal with fines to amounts only exceeding \$500. This resolution asked that the TMA carry this further to the AMA and to this end the delegation to the AMA from Tennessee introduced Resolution A-73.

*Action:* Resolution A-73 was referred to Reference Committee G of the AMA House of Delegates. The Reference Committee recommended that the resolution be referred to the AMA Board of Trustees and the House of Delegates concurred with that recommendation. The Board of Trustees referred the matter to the AMA Council on Legislation and that council considered the matter at its September meeting. TMA and the sponsor of the TMA resolution, Dr. Jerome McKenzie, Knoxville, were invited to attend the meeting of the Council on Legislation. In lieu of attendance, the TMA sent supporting material outlining its position, and Dr. McKenzie had the opportunity to discuss the matter with the AMA's Council on Legislation staff. The Board of Trustees received the report from the Council on Legislation and submitted a report (Report KK) back to the AMA House of Delegates at the interim meeting.

The Reference Committee, at the interim meeting, recommended that Resolution A-73 not be adopted and that the Board of Trustees' recommendation in Report KK be adopted and the remainder of the report filed. The AMA House of Delegates adopted the Reference Committee's recommendation. In the Board of Trustees' report it was pointed out that currently there is a pilot project underway instituted by HCFA which allows for aggregation of Medicare claims under \$500 when they involve common issues of law and fact. This pilot project, ongoing in four states, will be completed in December, 1992. It is believed that this pilot project will offer relief as requested by AMA Resolution A-73. Also, provisions of the AMA



drafted Medicare physician regulatory relief amendments of 1991 (HR 2695/S 1332) so-called "Second Anti-Hassle Factor Bill" would allow individuals to file administrative appeals when the Medicare carrier has failed to implement or has inappropriately implemented Medicare policy. It is also believed that lowering the threshold amount for jurisdiction to the federal courts would continue to further an already overburdened federal court system.

While not totally pleased with the AMA's conclusions, the TMA delegation to the AMA is satisfied that this resolution has run its entire course and the intent of TMA Resolution No. 22-91 has been accomplished.

#### *Resolution No. 23-91*

*Subject:* Credentials and Qualifications of Reviewers from PRO and Medicare. This resolution called for TMA support of the position that Medicare reviewers' credentials and background be known to physicians who are being examined before peer review is performed. It also asked for federal legislation passage that would guarantee that these credentials and background of the reviewers be made known prior to peer review. It asked for this resolution to be introduced to the AMA House of Delegates.

*Action:* This resolution was introduced in the AMA House of Delegates in June, 1991 in the form of Resolution A-71. Resolution A-71 and A-200 were considered by an AMA Reference Committee together. These resolutions were combined into Substitute Resolution 200 that was adopted asking the AMA to petition third party payors and HCFA to require professional review organizations (PROs) and carriers to publish and forward annually to the quality assurance chairmen and the chiefs of staffs at all hospitals under their jurisdiction, as well as all state medical associations, the names of physician reviewers, their credentials, and their specialties. Also, part of this resolution calls for AMA to petition HCFA and third party payors to require the physician reviewers to reveal their identity by signing a letter submitted to a physician placed under review.

#### *Resolution No. 24-91*

*Subject:* Physician Access to Medicare Screening Standards. This resolution called for TMA to support legislation or regulations that would require Medicare, prior to implementing quality screens, to disseminate such screens to all physicians according to listing and educational process (other than by audit), and request the AMA to support similar efforts through its House of Delegates.

*Action:* Upon further study, it was determined that AMA was already working with Congress in an effort to carry out the intent of this resolution. As a result of AMA's anti-hassle bill which was part of OBRA 1990, demonstration projects were currently being carried out across the country on a trial basis to estimate the effect of releasing medical utilization parameters data. The delegation to the AMA from Tennessee felt like this policy was already in effect and there was no need to pursue further action.

#### *Resolution No. 25-91*

*Subject:* Board of Trustees Composition and Elections. This resolution asked that the current inequity of electing Board of Trustees members be addressed over the next two years to insure that representation from the three grand divisions be equalized with regard to the election cycle.

*Action:* The Nominating Committee reviewed Resolution No. 25-91 and concurred that as adopted there was still inequity

and that a second resolution should be adopted by the House of Delegates in 1992. This resolution would simply modify Resolution No. 25-91 by electing one trustee from East Tennessee in 1992 for a three-year term. The formula outlined in Resolution No. 25-91 for West Tennessee elections was appropriate and will accomplish the intent of the House of Delegates.

#### *Resolution No. 26-91*

*Subject:* Workers' Compensation Insurance Carriers. This resolution instructed the Association to request an opinion of the State Attorney General regarding the legality of workers' compensation insurance carriers setting fees for services provided in workers' compensation cases and, if the opinion indicated that such an activity was illegal, to request appropriate corrective action.

*Action:* TMA legislative staff approached the sponsor of the legislation, Dr. Charles Allen, and advised him of the pending workers' compensation legislative study committee that was scheduled to be appointed in early summer of 1991 to undertake a comprehensive review of the workers' compensation system in Tennessee. Because of the pendency of this study committee's activity, the sponsor agreed that requesting an Attorney General's opinion on this subject would be inappropriate until the conclusion of the study committee's activities, and any legislative action on workers' compensation which might flow from the committee's review of the system. TMA staff will continue to monitor the legislative environment regarding workers' compensation reform and, in consultation with the sponsor and the Committee on Legislation, will pursue an Attorney General's request regarding the legality of the insurance industry's treatment of fees in workers' compensation cases when the situation merits such action.

#### *Resolution No. 27-91*

*Subject:* Insurance Carriers' Disruption of the Physician/Patient Relationship. Adoption of this resolution requires the TMA to exercise all avenues to be certain that insurance carriers are carrying out their responsibility to their clients, are not disrupting the doctor/patient relationship, and are making available to the profession and to the state their usual and customary fee schedule, including appropriate definitions for evaluation.

*Action:* State legislation to require carriers to release usual and customary fee schedules has met with strong opposition from the insurance industry which has succeeded in defeating those efforts. They claim that this data is proprietary and that publication would result in an increase in costs as physicians below the allowable charge would raise their fees. TMA has informed individual carriers of this policy and has sent a copy of the resolution to the Health Insurance Association of America. This policy continues to guide TMA, particularly during legislative negotiations regarding workers' compensation.

#### *Resolution No. 28-91*

*Subject:* TMA Annual Meeting in Chattanooga. This resolution called upon TMA to investigate the possibility of conducting a future TMA annual meeting in Chattanooga.

*Action:* In early May, 1991 TMA staff contacted the convention sales manager of the Chattanooga Area Convention and Visitors Bureau. The Bureau was provided with a detailed listing of all TMA annual meeting functions and their minimum space requirements. The Bureau responded with a hypothetical assignment of those functions to four different downtown hotels and the Chattanooga Trade Center. In Au-

gust, 1991 the Bureau informed TMA that the maximum number of hotel rooms available at the Chattanooga Marriott (adjacent to the trade center) would be 250. Hotel rooms available at the other three hotels would allow TMA a sufficient total number of sleeping rooms. The TMA Board of Trustees is scheduled to hear a presentation by TMA staff at its April 8, 1992 meeting regarding the characteristics of meeting and hotel properties available to TMA in Chattanooga for a 1996 meeting.

All of the resolutions adopted by the House of Delegates in 1991 were assigned to the appropriate TMA committee for action. Any action taken on the specific resolutions calling for legislative and/or governmental involvement are outlined in this Board of Trustees Report and in the committee reports to the House of Delegates. Specific response by the government entities called for in the 1991 resolutions was through the TMA committee structure. Most of the 1991 resolutions called for TMA to work with the various government agencies and bodies, and those activities have been overseen by the Board of Trustees.

I am sure that after reading and reviewing the lengthy summaries of the many actions and considerations taken by the Board and the Executive Committee, it becomes evident that much time and effort have been expended by the members of the Board during the past year with wisdom. The members of our Association have carefully elected a group of outstanding Board members and officers, and I have been extremely impressed with the thoughtful considerations of the agenda items brought before our Board. I greatly admire each and every member of your Board and what he has contributed during the past year to the continuing improvement of the Tennessee Medical Association and the medical profession as a whole.

REFERENCE COMMITTEE C—*reviewed the report of the Board of Trustees and recommended that it be filed.*

ACTION: FILED

## Report of the Secretary-Treasurer

R. BENTON ADKINS, M.D.

The annual audit for the fiscal (and calendar) year ending December 31, 1991 has been completed and is available for review. The customary examination of Association records and accounts was conducted by Bellenfant & Miles, P.C., Certified Public Accountants, appointed by the Board of Trustees.

The attached financial reports have been extracted from the complete audit. They show the revenue and expenditures during 1991 as well as the assets, liabilities, and fund balance at the end of the year.

During 1991 many unforeseen expense items, mainly due to occupying a new headquarters facility, resulted in expenditures that exceeded the projected budget by \$171,445. This overrun was offset, fortunately, by revenue items that produced

funds in excess of the projected income. The net result was a final year-end balance sheet that showed revenues exceeding expenditures by \$8,914. Finishing the year in the black was an accomplishment in itself. Our new headquarters has been furnished and old equipment replaced. If members of the House were unable to attend the dedication ceremony July 13, 1991, I urge you to take advantage of the opportunity to visit your facility during the open house tomorrow afternoon between 2:00 and 4:00 p.m.

During 1991, the old 112 Louise Avenue headquarters building was sold for \$520,000, and the proceeds applied to-

### STATEMENT OF REVENUE, EXPENSES, AND CHANGES IN FUND BALANCE

	Year Ended December 31	
	1991	1990
<b>REVENUE</b>		
Membership Dues	\$1,748,030	\$1,261,345
Annual Meeting		
Exhibits	22,500	44,250
Banquet Tickets	8,330	8,880
Medicine & Religion Tickets	2,895	1,300
Nonmember registration	675	
Journal		
Advertising	63,268	76,418
Subscriptions	2,892	3,214
Investment Income	91,174	128,134
TMA Physician Services—Dividends	75,000	75,000
AMA Collection Fees	22,049	23,851
Impaired Physician Grant	170,000	144,000
Medicare Access Program Grant	19,735	63,587
Specialty Society Administration	40,183	43,326
Rental Income	31,128	
CME Accreditation	5,650	3,750
Total Revenue	<u>\$2,303,509</u>	<u>\$1,877,055</u>
<b>EXPENSES</b>		
Administrative	\$ 783,211	\$ 703,006
Administrative Support & Services	34,469	31,682
Travel—Staff	40,950	49,820
Officers	75,723	81,169
Impaired Physician Program	219,872	218,063
Committee Expense	6,210	30,404
Legislative Committee	44,642	32,326
Continuing Medical Education	10,251	14,136
Annual Meeting	55,656	54,270
Taxes	46,276	45,498
Headquarters Expense	54,357	29,738
Journal	156,563	148,165
Student Education Fund	118,888	122,832
Specialty Society Administration	54,606	50,832
Other Organizations	18,207	20,149
CARE Program	160,206	178,225
Medicare Access Committee	19,735	63,587
Interest	93,087	
Depreciation	90,219	29,848
Total Expenses	<u>\$2,083,128</u>	<u>\$1,903,750</u>
Excess of Revenue Over Expenses		
Before Gain from Sale of Land,		
Building & Equipment	220,381	( 26,695)
Gain from Sale of Land,		
Building & Equipment	320,522	
Excess of Revenue Over Expenses	540,903	( 26,695)
<b>FUND BALANCE</b>		
Beginning of the Year	2,056,199	2,082,894
End of the Year	<u>\$2,597,102</u>	<u>\$2,056,199</u>



wards reducing the construction loan on the new headquarters. Also during 1991 the TMA Student Education Fund repaid its final installment of \$89,700 which represented the last of the monies lent to the Fund by TMA since its inception. In light of my comments above, the money was well received, and most appreciated.

For 1992 we are anticipating revenues of \$2,363,350 and a budget with projected expenditures of the same amount. Included in this budget, however, is a \$200,000 payment against the headquarters building's outstanding loan balance of \$554,596. The continued close monitoring of revenues and expenditures will be necessary in order for the Association to meet all of its obligations and to continue to provide those services and programs as directed by this House of Delegates. I appreciate the assistance members of the Finance Committee have given during the past year, as well as the cooperation and understanding extended by the Board of Trustees during my tenure as treasurer.

BALANCE SHEET			
Year Ended December 31			
1991			
1990			
<b>CURRENT ASSETS</b>			
Cash and Cash Investments			
Operating Cash	\$ 643,836	\$ 686,225	
Reserve Cash	600,000	900,000	
Total Cash/Investments	1,243,836	1,586,225	
Interfund Notes Receivable		89,700	
Accrued Interest Receivable		9,397	
Investment in TMA Physician Services, Inc.	1,000	1,000	
Total Current Assets	1,244,836	1,686,322	
New Facilities Under Construction		2,089,081	
Land, Building & Improvements, Equipment & Autos			
Land	876,995	64,803	
Building	1,599,566	199,744	
Tenant Improvements	77,311		
Office Equipment	208,826	187,444	
Automobiles	21,817	21,185	
Less Accumulated Depreciation	(128,507)	(241,269)	
Land, Building & Improvements, Equipment & Autos—Net	2,656,008	231,907	
Total Assets	\$3,900,844	\$4,007,310	
<b>CURRENT LIABILITIES</b>			
Accounts Payable & Accrued Expenses	\$ 16,250	\$ 29,622	
Dues Collection Escrow	714,496	703,144	
Unearned Exhibit Fees	16,400		
Total Current Liabilities	747,146	732,766	
Tenant Deposits	2,000		
Note Payable—Third National Bank	554,596	1,218,345	
Total Liabilities	1,303,742	1,951,111	
<b>FUND BALANCE</b>	2,597,102	2,056,199	
Total Liabilities and Fund Balance	\$3,900,844	\$4,007,310	

REFERENCE COMMITTEE C—reviewed the report of the secretary-treasurer and recommended that it be filed.

ACTION: FILED

# Report of the Judicial Council

FRED RALSTON JR., M.D., *Chairman*

The Judicial Council of the Tennessee Medical Association has not been required to meet in full session since TMA's April 1991 House of Delegates meeting. Last year's Bylaw amendments changed peer review case administration such that most peer review cases are resolved by the component societies since they have original review jurisdiction. The Council generally only becomes involved on appeals.

During the past year the Council continued to administer one patient's appeal (carried over from the previous year) of a local component society's decision concerning an allegation of one member's unethical conduct. An investigation proceeded to a conclusion, but the case was dismissed since the patient refused to attend the scheduled hearing as required by the Council. Without the patient being physically present to testify, the member physician would have been unable to confront the accuser as required by due process. As a result, the appeal's dismissal means that the county society's judgment exonerating the physician became final.

No other items were referred to the Council during the past year. As always, our component societies continue to do an excellent job interpreting and handling ethical issues involving their members. Those who work at the local level are to be commended for their efforts, particularly in light of the many procedural changes that have occurred.

As chairman, I wish to thank all of the members of the Judicial Council for their willingness to serve TMA in this important capacity.

REFERENCE COMMITTEE C—reviewed the report of the Judicial Council and recommended that it be filed.

ACTION: FILED

# Report of the Executive Director

MR. L. HADLEY WILLIAMS

The past 12 months since my last report to this House has produced a multitude of activities by the Association on behalf of the members it serves, the general public, and government at all levels. Continuation of the TMA public relations program (CARE) into its second year produced measurable results; gearing up for changes in Medicare physician reimbursement via RBRVS through two series of statewide seminars, as well as completing the move into the new headquarters building, all required time and effort on the part of many TMA members as well as staff. Although the move to 2301 21st Avenue, South

took place last March, just prior to the 1991 annual meeting, a great deal of work remained to be done. A dedication ceremony was held on Saturday, July 13, 1991 with Dr. James Todd, executive vice-president of the American Medical Association as principal speaker. For those members who were unable to attend the dedication, plans have been made to provide building tours during this annual meeting. On Friday afternoon, buses will leave Opryland Hotel at 2:00 p.m. to transport those members who desire to see and tour the new facility within a two-hour period, returning to the hotel at 4:00 p.m. Those desiring to take advantage of this opportunity should sign up at the registration desk.

In my report last year, I outlined the basic features and details of the AMA's proposal to reform the health care system in this country via Health Access America. When introduced in the spring of 1990, the plan was one of very few proposals at that time. But this year, it found lots of company as several new initiatives were presented to Congress.

At the heart of three of the most notable proposals—Health America, a plan issued by the Senate Democrats; recommendations from the bipartisan Pepper Commission; and legislation prepared by Chairman of the House Ways and Means Committee, Dan Rostenkowski—are requirements for employer-sponsored health insurance and Medicaid reform, two points that are central to the focus of Health Access America. The AMA has provided testimony to establish the need for reform as well as support for Health Access America at some 15 congressional hearings and many more state sessions, including the National Governors' Association Task Force on Health Care. Legislators at every level have expressed support for the core principles of Health Access America.

Health Access America's 1991 communications played an integral role in moving health care reform toward the top of our minds, and toward the top of the nation's agenda. The AMA's plan is based on a guiding principle that reform should be built on the strengths of the current system, which has always been responsive to consumer demand. I urge members of the House to become acquainted with the 16-point plan.

Perhaps the most significant event this year, from a physician's standpoint, was HCFA's attempt to usurp congressional intent and authority and reduce MD payments via Medicare reimbursement reform and RBRVS. The AMA mobilized national, state, and county medical societies and specialty groups to ward off the HCFA proposal to reduce physician payment across the board by 16%. This nationwide effort produced more than 100,000 letters of protest as well as hundreds of congressional inquiries. Congressmen, senators, national press, bureaucrats, and everyone involved credit the AMA for the defeat of the RBRVS reduction. Continued efforts by AMA to restore the full amount through legislation are now underway. One more "what has the AMA done for me" question answered with positive results worth many times the cost of annual dues.

Author Robert Merton, in his book, "Functions of a Professional Association," describes nonmembers of an association who benefit from the labors of their colleagues who pay their dues and carry the load for them. He describes "freeloader" in the following manner:

Members of a profession who are not members of the association typically receive an unearned increment of social, moral, and economic gain from the work of their professional colleagues in the association. In the not inappropriate idiom, those who remain outside the organization are the "freeloaders"; they do not pay their way, either in dues or in kind. True, the freeloaders in a

## TMA MEMBERSHIP REPORT

As of December 31, 1991

	1991	1990	1989	1988	1987
Dues Paying Active Members	5,116	5,125	5,057	5,019	4,981
Dues Paying Resident Members	84	76	51	77	87
Dues Exempt Members	1,163	1,214	1,171	1,018	920
Veteran Status	(544)	(536)	(569)		
Military, Disabled, and Retired	(389)	(346)	(317)		
Student	(230)	(332)	(285)		
<b>TOTAL</b>	<b>6,363</b>	<b>6,415</b>	<b>6,279</b>	<b>6,114</b>	<b>5,988</b>
Deaths	42	61	61	44	43

### AMA Members from Tennessee:

TMA Dues Paying and Exempt	4,536
AMA Direct Members	1,659
<b>TOTAL AMA MEMBERS</b>	<b>6,195</b>

71% of TMA members are AMA members

profession often do not realize that they are nonpaying and nonparticipating beneficiaries of the sustained work done by those who make up the associations representing the profession. Yet they are in much the same condition as citizens who would avoid paying taxes and taking part in public service while benefiting from the taxes and activities of the rest of who contribute to the commonwealth. It is a task confronting every professional association to convert the freeloader into the member, preferably an actively participating member, not only that he may do his share of the work which the organized profession needs to have done but also in order that his voice may be heard when the organization formulates its policies.

TMA's newly formed Membership Committee needs the help of all TMA members in encouraging and recruiting new members of TMA. The load becomes lighter when everyone carries his own share.

Although TMA's financial status is operating on an even keel, additional dollars through additional memberships are badly needed. Despite a badly depleted reserve account, TMA is working towards a return to a debt-free headquarters building. Dr. Benton Adkins, TMA secretary-treasurer, has written a detailed report of the TMA financial situation and I recommend his report to you.

As is customary, I submit the membership report (Table), which outlines current TMA membership numbers in various categories as well as those for the past five years for comparison purposes.

I would like to commend the dedicated TMA staff for their devotion to duty on your behalf during the past year. My appreciation is also extended to the officers and members of the Board of Trustees for the many hours they have contributed on behalf of the profession and for the leadership provided during the past 12 months.

On a personal note, I would like to express my appreciation to the Board for naming me chief executive officer for the Tennessee Medical Association and for elevating Don Alexander to the post of executive director. The Board has accepted



and put in place my suggested three-year transition plan whereby all duties and responsibilities of the CEO position will be passed on to Mr. Alexander on an orderly, systematic and timely basis, thereby assuring continuity and proper management of TMA affairs until April 1995 at which time I shall reach retirement age and will have completed 33 years of service. The Board's understanding and foresight is greatly appreciated.

Dr. Howard Salyer has served as your president with dedication and devotion during the past year and was always on call whenever his leadership was needed. Dr. Charles Ed Allen will, I am certain, continue in his footsteps as an able spokesman and leader, and staff looks forward to working with him to implement another productive year.

REFERENCE COMMITTEE C—*reviewed the report of the executive director and recommended that it be filed.*

ACTION: FILED

### Committee Reports

The following standing and special committees made annual reports to the House of Delegates:

- Committee on Scientific Affairs
- Committee on Legislation
- Committee on Governmental Medical Services
- Committee on Constitution and Bylaws
- Committee on Hospitals
- Peer Review Committee
- Committee on Communications and Public Service
- Interprofessional Liaison Committee
- Committee on Continuing Medical Education
- Impaired Physician Peer Review Committee
- Committee on Rural and Community Health
- Committee on Medicine and Religion
- Primary Care Liaison Committee
- Geriatrics Committee
- Committee on HIV Infection and AIDS
- Committee on Organ Procurement

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Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

#### New Address

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Effective Date of New Address \_\_\_\_\_

Send to: TMA, PO Box 120909, Nashville, TN 37212-0909

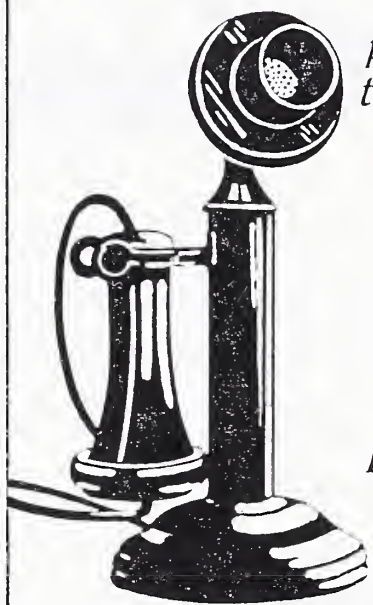
# Help for Impaired Physicians

Through its Committee on Impaired Physicians, the Tennessee Medical Association helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

## HELP US TO HELP

Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.

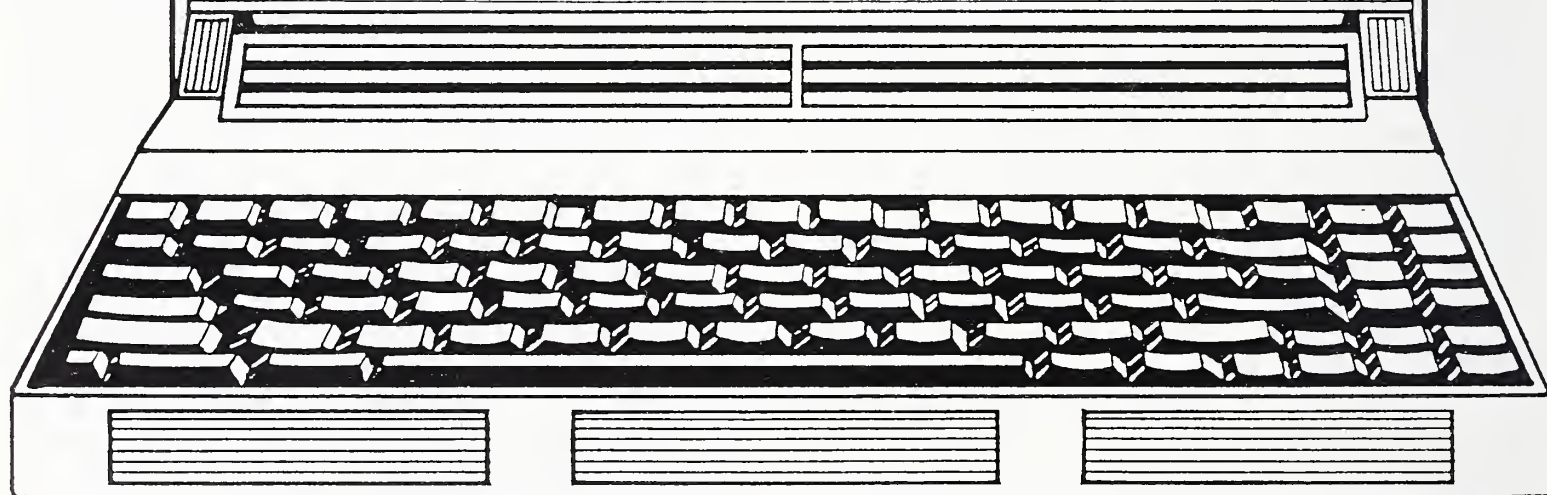
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CHARLES ED ALLEN

## *The Learned Professions*

Medicine, theology, and law have traditionally been recognized as the learned professions. Inherent to this designation are extensive and continuing study, in-depth understanding of the subject, special skills, and high standards. These attributes apply to many other areas of human endeavor and alone do not adequately define a learned profession. A further requirement is that the profession be dedicated to public service, without which a learned profession cannot exist.

Theology as a profession appears to remain untarnished. Medicine and law are in jeopardy of being reclassified.

It is of small comfort to physicians that some who practice law have succumbed to the enticements of commercialism without concern for the public good, since we in medicine have been touched by the same plague. Clearly there are financial and business aspects of medical practice without which we cannot survive. Even so, if monetary reward becomes our first concern, professionalism will depart.

Current controversy surrounds so-called self-referral to physician-owned facilities, e.g., diagnostic centers and ambulatory surgical centers. Even though services may be provided at lower cost than is otherwise available, some regulators claim that referrals are made for profit rather than for medical necessity. Although we may remain scrupulously honest, we are expected to avoid arrangements that could be viewed as being potentially dishonest.

Reimbursement for medical care is becoming less predictable. Our "financial feet" are on shifting sand. This uncertainty leads to apprehension, which could in turn divert us from our fundamental obligations. Medicine will continue as a learned profession only as long as we physicians persevere in honoring our primary commitment to individual patients and to the public.

*Charles E. Allen, M.D.*

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JUNE, 1992

# editorials

## How 'Bout *That*, Sports Fans?

Q. When is a sport not a sport?

A. Nearly always.

The success of Carnac the Magnificent derived from his uncanny ability, given the answer, to formulate the correct question. My prescience being more than somewhat inferior to that of Carnac, it took me several attempts, but I think I have finally gotten there. See if you agree, assuming the answer above to be the correct one. Neither my answer nor its

question is as amusing as most of Carnac's, though they do have some humorous elements. On balance, I guess they're more tragic than funny.

The dictionary nearly blew this editorial right out of the water even before it got started, because the definition, or rather definitions, I found there were not at all what I expected. Before that, I would have assumed my question matched up with its answer, since I had always labored under the apparent misapprehension that aside from its connotation of high living and sexual dalliance, which my dictionary says is now obsolete anyway, "sport" was inextricably associated with sportsmanship. Unlike sport, which can be both a noun and a verb, and takes four inches of fine print for the definition(s) of each, both "sportsman" and "sportsmanship" require only a few lines each. A sport is a lot of things. Sportsmanship is defined in terms not of the sport, but of the sportsman. Unlike a sport, which as a noun can be either a who or a which, and as a who can be either good, bad, or indifferent, a sportsman is by definition good, being, first, one who engages in sports, but also who, in engaging in those sports, is fair and generous, resorts to nothing illegitimate, and is a good loser and a graceful winner. For sportsmanship, an archaic definition is proficiency in a sport; the only current definition is conduct becoming to a sportsman, and involving fair, honest rivalry, courteous relationships, and graceful acceptance of results.

From the above, what became apparent was not that the answer I had given was wrong. It was just that, as Carnac could have told me, I had asked the wrong question. The correct question is, "When is a sportsman (one who engages in a sport) not a sportsman (one who is fair, generous, a good loser, and so on)?" Answer: not infrequently, or so at least it would seem.

One of the things the young of any animal species, including homo sapiens, learns early, or had better if it is to survive, is that things are not always what they seem. Possibly that is the situation here, and possibly again the question is not the correct one, or at least not entirely. Maybe the appropriate question that would give me my preconceived answer, which is, "Almost always," is "When is a sports fan not a sportsman?" Now we're getting somewhere, if under the category of sports fan we include for our purposes here coaches and others whose livelihood depends upon the success of their stable of athletes (used here synonymously with sportsmen). Now we're *really* getting somewhere.

From what I have read about the institution of the modern Olympics, I have a sneaking suspicion that the entity that has evolved bears only a passing re-



semblance to the one Baron de Coubertin had in mind. Success was not to be measured in terms of winning, but of competing at the peak of one's competence; just being allowed to compete was an end in itself. Human nature being what it is, I have an idea about just how long that survived.

In executing the first daring double Axel in competition back in 1948, Harvard freshman Dick Button elevated—a word that, according to some figure skaters, is not the appropriate one—the fine art of figure skating into the realm of athletics. Today, no male figure skater without a *triple* Axel has any hope of bringing home Olympic gold, and the women also are finding it increasingly difficult to do so. Both are now working toward the quadruple Axel, which has on occasion been accomplished. That, sports fans, is *four* and a half times around only as far off the ice as the skater can jump. To get around four and a half times, that had better be high.

The *piece de resistance* in the skater's repertory is the long program, which is four and a half minutes of tough—you should excuse the expression—sledding. In the Winter Olympics just finished in Albertville, France, no skater, male or female, skated a flawless performance. That was so exceptional that it had some speculating that there must have been something wrong with the ice. Maybe so. Kristi Yamaguchi, who is not Japanese but fourth generation American from Fremont, California, is noted for being the most consistent of all the skaters. Kristi's forte is artistic grace, not athletics; she does not have a triple Axel in her repertory. When asked what she thought of her chances of winning, she replied that she hadn't given it much thought. She wanted only, she said, to skate well. Skate well she did—well enough, at least, to carry home the gold. Even she had a slight bobble; failing to attain sufficient height on one of her jumps, she touched a hand to the ice. Midori Ito, who is Japanese, was the odds-on favorite to win the gold. Midori is a superb athlete whose only deficiency is that her artistry needs a bit of touching up. It was only an astounding comeback after suffering *two* falls that allowed her to return to Japan with the silver medal. The men fared no better.

Was it the ice? Except that the surface is dressed after every few performances, it was the same ice that allowed all of the medalists to execute flawless performances in the exhibition held on the final evening. From the time of her arrival in Albertville, Midori was hounded by the press to the extent that she found it difficult to practice; after failing to win, she spent the rest of the evening apologizing to her country. With the bobble by Kristi, who skated first, bleak consternation was written all over her mother's

face. Sob stories abounded everywhere, the most notable being that of Dan Jansen's failure to score in the speed skating. It would not be hard to have come away with the impression that the failures absorbed more news time than any of the success stories, even in that of Alberto Tomba, whose settling for a silver medal in one of the slalom events seemed to be bigger news than his gold in the other. He shrugged that off with the comment that he had always wanted one that color to go with his three gold ones.

The other evening in a basketball game between the University of Tennessee (UT) and Louisiana State University (LSU), a minor altercation between two players after a deliberate foul was turned into a brouhaha of gargantuan proportions by the failure of a coach to be a sportsman: it was an embarrassment not only to everybody involved, but also to a lot who weren't involved, by the failure of the deputy commissioner of the Southeastern Conference and the officials to behave responsibly. I think it is safe to say there were no sportsmen on the floor at the time. Ten players were ejected, and an all-American player from each team was required to sit out his next game, whenever that might be. Although both the intentional foul and the reaction to it were unsportsmanlike, the worst offender in the action was simply reprimanded. It was, after all, the LSU coach, Dale Brown, who must bear responsibility for the whole mess. The deputy commissioner and the officials were guilty in failing to clean it up: I define cleaning it up as ejecting Coach Brown from the game, and possibly the next as well. It remains to be seen whether the administration of LSU behaves responsibly toward Coach Brown, perhaps a la Coach Woody Hayes. As was apparent to the entire TV audience, Coach Brown's marksmanship is the only thing as poor as his sportsmanship. It would be a mitigating circumstance if this were an isolated incident, but it is consonant with the pattern of Dale Brown's career in coaching. Still, it would be unfair, given the situation in sports, at least as I find it, to make him the devil; a demon, perhaps, but not the devil. Maybe the same could have been said about Woody Hayes, though sinners must bear the consequences of their sin, regardless of how understandable it might have been.

My answer was first written with "today" in front of it, a lot having been made in times past of the honor of competing in the original Olympic games, which, Baron de Coubertin was fond of pointing out, were simply games. Grantland Rice also allowed as how the Great Scorer was less interested in whether you won or lost than how you played the game, and that is, of course, the philosophy behind the definitions I quoted at the beginning of this piece. More

pragmatic, though, since the creatures of the Great Scorer are generally somewhat less charitable than He where losing is concerned, is the comment attributed to Coach Bear Bryant, the late football coach at the University of Alabama, "If winning isn't important, why do they keep score?" Maybe even more appropriate to the situation under discussion is the statement attributed to the University of Kentucky's late, great basketball coach, Adolph Rupp: "Winning isn't the main thing; it's the only thing."

In professional competition, of course, winning *has* to be the only thing; livelihoods and franchises depend upon it. One hopes efforts toward that end stay within the bounds of sportsmanship, and failing that, at least of reason. In amateur athletics the breakdown occurs at the level of the coaching staff, where careers are made and destroyed in the won-lost column. The difficulties arise in the infection of their impressionable charges by their coaches' insecurity, and perhaps, deplorably, their bent or fractured ethics. That can lead to unsportsmanlike conduct, where too often the only sin is in getting caught at it, and to such dangerous and illegal practices as anabolic steroid use.

This year for the first time professional athletes are allowed to compete in the Olympic games, a not unreasonable decision if the purpose of the games is to determine who is actually "best." Figure skating alone remains "pristine," which is in quotes because Eastern bloc skaters, along with all their other athletes, have always been professionals in that they have been fully subsidized from an early age. That advantage can be predicted to dwindle in the coming years, and in fact athletics in those countries face an admittedly uncertain future.

Now I recognize that if I accept my latest question as being the correct one for my answer, I'll be stepping on nearly everybody's toes, including my own. Nevertheless, I am convinced that the fertilizer at the roots of the conduct of Dale Brown and Woody Hayes, among countless others, and of the intentional fouls on the basketball court, the face mask violations, the use of anabolic steroids, the flawed performance of the skaters, and so on is the inordinate emphasis the human race (not to mention lower forms) places on being first, which is the devil that fathers all those demons we have been speaking of. Pragmatically speaking, then, the question that goes with "Almost always" is indeed "When is a sports fan not a sportsman?" Only the dictionary answers the question, "When is a sportsman not a sportsman?" as "Almost never," all of our protestations to the contrary notwithstanding.

I expect some flack from this, but I remain intran-

sigent. Since I did not include everybody all of the time, you may exempt yourself if you wish. As for me, I hate to see my team lose as much as the next man, though I must say that, being a Vanderbilt fan, I find the new to have worn off that a long time ago.

J.B.T.

## Charity Begins—At Home?

There are at least three common sources of aphorisms, with an occasional platitude thrown in: *The Bible*, Shakespeare, and *Poor Richard's Almanac*. Poor Richard, aka Benjamin Franklin, one of the world's wiser men, thought up bits of wisdom and collected others, publishing them in his newspaper under the byline of Poor Richard. People who revere *The Bible* as holy writ but don't know much about what's in it tend to attribute sayings they agree with to *The Bible*, and those they don't agree with to some other source. Some of those who think little of *The Bible* and who are old enough to have heard of Benjamin Franklin tend to attribute them all to Poor Richard. The melancholy truth is that some of today's young more than likely know little or nothing of what I'm talking about.

In any case, bits and pieces from the three sources I mentioned, plus some, I'm sure, from Chairman Malcolm, and for all I know, Chairman Mao as well, among who knows what others, either carefully or heedlessly get all mixed together in a sort of primordial soup from which wisdom is supposed to spring, like Venus, fully formed. One or another of the sources may receive the attribution, or then again it may not.

The difference between an aphorism and a platitude, both of which are sayings that may be well known, and sometimes well worn, is that the former are tersely stated bits of wisdom, whereas the latter are trite or banal statements of little worth; there is a lot of overlap, and which one a given statement turns out to be likely depends at least as much on whom you ask as on any intrinsic characteristics. Used enough, or perhaps misused, as is frequently the case, the former can turn into the latter. Played straight, the title of this piece, which incidentally is often incorrectly cited as being from *The Bible*, is a case in point. It may be used to mean that one learns charity at home, which is laudable, or it may be used—is used, with the authority of holy writ—to defend the position that not only does charity begin at home, but that it stops there, too, extending no farther than to the door (or to the national boundaries, or to what-



ever else it is that the prospective philanthropist wishes it to stop); that, at least to my way of thinking, isn't laudable. Such a stricture is at best uncharitable and at worst dangerous.

Uncle Sam, the American expression of Big Brother in both its best and its worst connotations, has been corrupted to Uncle Sugar, sometimes as a compliment but just as often in derision, by recipients of his largesse, and to Uncle Sucker by the taxpayers. It does appear, looking at history, that except for the American Southern Confederacy, the best way to get ahead in the world has been to lose a war with the United States. That can be defended on the grounds of Christian charity, of course, or confounded by the presence within our own borders of multitudes just as badly off as those we are helping on other shores. The more pragmatic defense was—and is—that the United States, including its own destitute, is better off, Christian charity or not, with a stable Japan and Germany in our own camp than with unstable ones gone the way of Russia after the Bolshevik Revolution in somebody else's. We expended massive effort and resources to ensure that, and it would seem generally to have paid off handsomely, even despite an occasional bite on our feeding hand. One cannot know, of course, what the consequences would have been of acting on the shorter view: would we have been by now better off, or worse? I myself think incomparably worse off, but of course that is just a gratuitous opinion that obviously can't be tested, and one that even I have sometimes held only a bit tenuously. What I really think is that we would all have been incinerated long since.

All of that is now history, but history is not something that is made once and for all; it is instead a continuum, in which if one rests on one's laurels, one is in danger of being thrown out and trampled under foot as the laurels are once they wither, which laurel does as soon as it is cut to make the laurel wreath. The United States and its allies have just won a war of monumental proportions, all the more significantly because it was done without anyone firing a shot. The danger is that the significance of that victory will by the same token become dimmed by the lack of armed conflict. We can't let it happen. Though there are other pressing reasons, for our own security we can't let it happen. The Soviet Union has dissolved into a conglomerate of newly independent nations aboil with national aspirations and awash with abject poverty and hunger that came with their new-found freedom; it is therefore hard for the man on the street to perceive that his situation has improved. It is an explosive mixture of the sort that sired the Bolshevik Revolution. The United States is sending

some aid to the distressed nations, but by all accounts that aid has been up until now woefully short, and such as there has been has sometimes made it past the bureaucratic tangle only barely, if at all. The Communist apparatus is generally still in place, particularly in rural areas, ready to take up where it was so rudely interrupted. The Bush administration has seemed reluctant to play Uncle Sugar this time around, though as of yesterday the dawdling West finally got around to committing itself to significant aid. It is possible to play Uncle Sucker in more ways than one, and too little noblesse oblige works just as well at doing that as too much does.

The Christian Church spread like wildfire throughout the Roman Empire in its early years, despite, or possibly because of, persecution and a dearth of operating funds. We are most of us, Americans especially, committed to the quick fix, where money will do anything. Money helps, of course, but for the Church the doldrums came with the acquisition of temporal riches. We who think capitalism works need to show the desperate peoples of the former Soviet Union how to go about making it work, without exploiting their straightened circumstances, and ignoring the possibility, or even the likelihood, that they will one day be in competition with us, as Germany and Japan are today. Communism has so far been abandoned only in theory in those countries. Under the Communist regime, choices were meager, but no one was starving. Today there are more choices, but few can afford them, or apparently much of anything else. The answer to their problems is not to be found in money alone, though they do need some of that; expertise is what is required. Whether you call such gifts charity or pragmatism is of small moment. So is where it starts. What matters is that it not stop there.

Fortunately for the West, according to an article in the *Wall Street Journal* the Poles, who have a leg up on the Russians, have now gotten into the act. After a two-year struggle grappling with the economics of the situation, Poland appears finally to have emerged. They declare that since they understand communism better than any of the Western consultants, they also know better how to bury it. They also point out, though, that there are vast differences between the situation in Poland and in Russia that make it much more difficult for the Russians to loose the shackles of communism and enter the world of capitalism. Leszek Balcerowicz, the former finance minister of Poland and author of its "shock therapy," observes that in abandoning communism, "For us it was liberation. For them it's humiliation. We didn't lose anything. They lost their history, their empire. For the

Russians there is no sense of a new beginning." All of which we need to take into account in our dealings with and our consideration of Russia as a nation, for which it may sometimes prove hard to feel compassion, and of the Russians as fellow inhabitants of planet Earth, who are made in the same image as we are. According to the dictionary, one of the attributes of a sportsman is the *gracious* acceptance of victory or defeat. That needs to govern our actions toward the Russians, regardless of our own preconceived notions of how the Russians might behave under similar circumstances, a situation for which the definition makes no allowances. In any case, our notions might be wrong, and I'm sure none of us would care to test either hypothesis.

"One World" means different things to different people. The term fell into disrepute because so many used it, particularly between the two World Wars, to mean a single world-government; the implication usually, or at least often, was that it would be communistic. Hence the understandable widespread reaction against it, and later against the United Nations, which was its effete progeny. There are still those who cling to American isolationism and protectionism, but the realities are that owing to modern communication and transportation, all of the peoples of the world have now become interdependent, whether or not some of us think so, and whether we like it or not. To that extent at least it is now one world. Unless we bend our best efforts to ensure that emerging nations have the opportunity to truly emerge, the present reduction, or, as the Washington illiterati like to say, downsizing, in armament and defense spending is premature, and will be into the distant future. It likely is anyway, given the technologic advances and the itchy trigger fingers of those with little or nothing to lose. That does not, however, lessen our obligation to spread the charity around, Uncle Sugar or Uncle Sucker, or just Uncle Sam notwithstanding. In case you skipped over it earlier, I said that does not necessarily mean money. But it does not necessarily not, either.

J.B.T.



*Murrell O. Clark III*, age 51, Died April 3, 1992. Graduate of Vanderbilt University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

*Thomas E. Simpkins Sr.*, age 84, Died April 13, 1992. Graduate of University of Tennessee College of Medicine. Member of Nashville Academy of Medicine.

*Dexter Levert Woods Jr.*, age 62, Died March 26, 1992. Graduate of University of Tennessee College of Medicine. Member of Wilson County Medical Society.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### **BRADLEY COUNTY MEDICAL SOCIETY**

*Sylvia Lynne Krueger, M.D.*, Cleveland

### **CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY**

*Donald B. Franklin Jr., M.D.*, Chattanooga

*Russell F. Hill, M.D.*, Chattanooga

*N. Earl McElheney, M.D.*, Chattanooga

### **CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE**

*Jackie L. Taylor, M.D.*, Jackson

### **KNOXVILLE ACADEMY OF MEDICINE**

*Larry M. Baddour, M.D.*, Knoxville

*James D. Pharaoh, M.D.*, Knoxville

*Janet L. Purkey, M.D.*, Knoxville

*Scott L. Wilhoite, M.D.*, Knoxville

### **MAURY COUNTY MEDICAL SOCIETY**

*Emilio J. Rodriguez, M.D.*, Columbia

### **MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY**

*James Reginald Burch, M.D.*, Memphis

*Reggie Lyell, M.D.*, Cordova

### **MONROE COUNTY MEDICAL SOCIETY**

*Eric Allan DeFreitas, M.D.*, Sweetwater

### **NASHVILLE ACADEMY OF MEDICINE**

*Mark Barham Carr, M.D.*, Nashville

*Whitson Lowe, M.D.*, Nashville

### **RUTHERFORD COUNTY/STONES RIVER ACADEMY OF MEDICINE**

*George Harrison Lien, M.D.*, Murfreesboro

*Ravi P. Singh, M.D.*, Murfreesboro

### **SULLIVAN COUNTY MEDICAL SOCIETY**

*Michael W. Bible, M.D.*, Bristol

*Daniel Franklin Kliner, M.D.*, Kingsport

*Eric David Moffet, M.D.*, Kingsport

### **WASHINGTON-UNICOI-JOHNSON COUNTY MEDICAL ASSOCIATION**

*James E. Crozier Jr., M.D.*, Johnson City

*Christopher J. Downs, M.D.*, Gray

*David W. Lacey, M.D.*, Johnson City

*Rachel Monderer, M.D.*, Johnson City

### **WILSON COUNTY MEDICAL SOCIETY**

*Lloyd D. Caudill, M.D.*, Lebanon



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### American Medical Association Survey Monitors RBRVS Activities

The American Medical Association is polling state medical associations and large group practices to determine if they are experiencing problems with the Medicare physician payment reform system. The survey, mailed in March, is a response to a Board of Trustees Report adopted by the House of

Delegates at the Interim Meeting. The report asked the AMA to monitor the implementation of the resource-based relative value scale to make sure that carriers conform to Medicare law. The AMA will release follow-up surveys at three month intervals.

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### Despite Concerns, AMA Sees Benefits In Regional PRO Centers

HCFA intends to establish regional centers to abstract PRO data. Peer review organizations will continue to act as the liaison with hospitals and medical staffs. PROs will continue to perform individual case review. But the regional or multistate Clinical Data Abstraction Centers, or CDACs, will assume responsibility for collecting information from the PRO's medical records. The CDACs will prepare data for the Uniform Clinical Data Set, UCDS, HCFA's computerized review system. The AMA believes:

- CDACs may improve overall accuracy of the data set.
- The regionalized approach would make it easier for researchers to compare physician and hospital profiles from different states.
- The centers could reduce the amount of hospital record review conducted by PROs.

But the AMA has concerns about the agency's implementing a vast, untested system. The AMA advised HCFA to maintain local arrangements while developing regional centers.



# The American Medical Association, CLIA and You

The federal government has released long-awaited rules to implement the Clinical Laboratory Improvement Act of 1988. The law expands the extent of federal laboratory regulation from the 13,000 labs now regulated to an estimated 200,000.

The bottom line, and the most encouraging news, is that physicians performing in-office tests will be able to continue with current personnel. But, standards will be most stringent for labs doing the most complicated tests.

In response to comments by the AMA and other physician groups, the test categories were changed to more accurately reflect how physicians use tests in caring for patients. Rules governing personnel were modified to allow doctors with one or two years of training or experience to head their own labs. Other personnel rules should be phased in over five years to provide help in rural areas.

The rules were published February 28 in the *Federal Register*. The AMA will work with specialty and state medical societies to modify parts of the rules that still need revision. Early analysis shows that problems remain. For example, it's not clear what kind of experience physicians are required to have to head an office lab. Regulations requiring routine unannounced inspections are apt to disrupt patient care. HCFA's estimate that additional costs will only add 25 cents per test is in question.

Regulations won't be effective until September and then will be phased in over several years to give physicians time to learn and comply. The AMA, working with other medical groups, has

already begun to put together educational programs and materials.

Here are the CLIA implementation timetables:

September 1, 1992: Quality standards go into effect. Labs will have to adhere to manufacturers' current instructions, and meet other specific interim quality control requirements. Also, a complete list of lab tests will be published. Enforcement regulations will go into effect.

January 1, 1994: Newly regulated labs, including most physician office labs, must be enrolled in a proficiency testing program.

In most office labs, the physician would serve as the clinical consultant—liaison between the lab and its clients for the purpose of interpreting and reporting test results. Physicians may also serve as technical consultants—the one responsible for technical and scientific oversight of the lab. Between September 1, 1992 and January 1, 1994, test manufacturers should be revising instructions to make them consistent with CLIA requirements and be approved by the FDA.

For now, wait. In the next few months, the government will begin to tell physicians what regulatory category they are going to fall into, how to register and how much to pay.

AMA executive Vice President, James S. Todd, MD said physicians should be "encouraged, but not complacent" about the regulations. "We are cautiously hopeful that these rules can be implemented with the minimal physician impact. But they will clearly have an impact on their offices," Dr Todd said.

TMA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) as a sponsor of continuing medical education for physicians. Nonaccredited organizations may request TMA's joint sponsorship of CME activities. As an accredited sponsor, TMA is authorized to designate certain CME activities for credit in the AMA Physician's Recognition Award Program.

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

- |            |   |
|------------|---|
| Oct. 22-24 | Vanderbilt Medical Alumni Association's (First Biennial) Reunion 1992 |
| Oct 23-24  | 3rd Annual Neonatology Symposium                                      |
| Dec. 3-5   | Lasers in Otolaryngology: Head and Neck Surgery                       |
| Dec. 11-12 | 18th Annual High Risk Obstetrics Seminar                              |

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232. Tel. (615) 322-4030.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

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#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

- |             |  |
|-------------|--|
| July 14-17  | Contemporary Clinical Neurology                              |
| Aug. 7-8    | Functional Endoscopic Sinus Surgery Workshop 1992            |
| Aug. 11-16  | Contemporary Medical Imaging IX—Hilton Head, S.C.            |
| Sept. 17-20 | Critical Care Medicine—Hilton Head, S.C.                     |
| Oct. 1-3    | Lasers in Otolaryngology: Head and Neck Surgery              |
| Oct. 2-3    | Laryngeal Video Endostroboscopy Workshop                     |
| Oct. 16-17  | Gynecologic Surgery Workshop in Pelviscopy, LLETZ, and Laser |

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208. Tel. (615) 327-6235.

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

- |                |   |
|----------------|---|
| July 27-Aug. 1 | Contemporary Issues in Obstetrics and Gynecology—Destin, Fla. |
| Aug. 6-7       | Health Care for the Poor and Uninsured                        |
| Sept. 24-25    | 24th Memphis Conference on the Mother, Fetus, and Newborn     |
| Nov. 12-14     | College of Medicine Alumni Weekend                            |

##### Knoxville

- |            |  |
|------------|--|
| Aug. 17-19 | 14th Annual Obstetric Office Ultrasound Workshop |
| Oct. 1-3   | 15th Cancer Concepts Course—Gatlinburg           |



- Oct. 5-7      Advanced Cardiac Life Support Providers Course
- Oct. 26-28    12th Annual Smoky Mountains Seminar in Obstetrics and Gynecology—Gatlinburg
- Nov. 6-8      14th Annual Otolaryngology Course for Primary Care Physicians—Gatlinburg
- November     9th Annual Alzheimer's Disease Symposium—Gatlinburg
- Chattanooga
- Sept. 17-18    Internal Medicine Update
- Oct. 1-2        Care of the Aging Patient
- Oct. 22-23     Critical Care Medicine

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

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Please send curriculum vitae and three references to:

Dan Spengler, M.D.  
Professor and Chairman  
Department of Orthopaedics and Rehabilitation  
Vanderbilt University Medical Center  
D-4219  
Nashville, TN 37232-2550

### PHYSICIANS WANTED

Full-time and part-time opportunities available for physicians in outpatient clinic. Must have adequate credentials and/or experience to treat both adults and children. Flexible schedules and paid malpractice insurance available.

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### FAMILY PRACTITIONERS

Rural community health centers located in beautiful mountains of northeast Tennessee are accepting CVs from Family Practitioners for a staff physician position at the Bluff City Medical Clinic in Sullivan County. Guaranteed salary with excellent benefits including paid malpractice insurance, continuing education assistance, a retirement program, and moving expense allowance. Approved loan repayment site.

Contact Rosemary King, Rural Health Services Consortium, Route 8, Box 35, Rogersville, TN 37857. Phone (615) 272-9163. (EOE)



## *The Golden Anniversary of the Nashville Surgical Society*

ROBERT W. IKARD, M.D.

Nashville Surgical Society secretaries are entrusted with records that document the history of the organization—its programs, leadership, business, and deliberations. The temptation to collate the material was irresistible to this former keeper-of-the-minutes. It occurred to me that others also might be interested in the facts buried in all that paper. Perhaps even a hint of their meaning could be understood after some analysis.

Said research having been accomplished, there follows a description of our first half-century. In the time allotted, it cannot be comprehensive. Rather, in broad brush strokes, I shall attempt to paint a representative image of our Society that portrays its purpose, actions, and persistent vitality.

Unfortunately, a huge part of the story is unavailable, all minutes prior to Jan. 15, 1965 having been lost. An additional impediment to knowing what happened is the absence of anyone who was present at its beginning; Dr. John Burch (Fig. 1), the last surviving founder, died in 1978. The lone living charter member, Dr. Henry Carney, lives in Texarkana, Texas. He left Nashville in 1942, and has no great recall of the early months of the Society. So the need for this amateur historian to document what is known of the "Nashville Surgical" is both compelling and important.

### **The Founding**

This is not the Golden Anniversary of the Nashville Surgical Society but the designation is acceptable under reasonable literary license. Though the precise date is unknown, the Society was organized early in 1940. Fifteen founders (Table 1) adopted a Constitution and Bylaws, and 17 new members (including two seniors, Drs. Richard Barr and Lucius Burch) were elected on May 27, 1940, making a total charter roster of 32 surgeons. The first president of the Nashville Surgical Society was Dr. Harrison H. Shoulders Sr. (Fig. 2).

The stated purpose was "... the advancement of the art and science of surgery by: (1) the free and informal interchange of ideas pertaining to the sci-



Figure 1  
Dr. John C. Burch



Figure 2  
Dr. Harrison H. Shoulders Sr.

Read as the Presidential Address before the Nashville Surgical Society, Nov. 14, 1991, Nashville.

Reprint requests to 250 25th Ave. North, Suite 203, Nashville, TN 37203 (Dr. Ikard).

ence and practice of surgery; (2) the encouragement of continuous critical study of surgical methods now in use and constructive criticism of new ideas for the advancement of surgery; (3) improvement in the facilities available to the members for the practice of surgery." Through many governing document revisions, this desirably general purpose has remained unchanged except for the deletion of the statement concerning facilities. The Society was incorporated in 1981. The last revision of the Constitution and Bylaws was made in 1989 when tax-exempt status was attained.

### Membership Criteria

Initial criteria for membership were not as definite as they later became. Several charter members were general practitioners who "specialized" in surgery. Article III of the Constitution said only that a membership candidate should have postgraduate training "adequate to qualify the individual to practice surgery," and that he confine himself to such a practice. This Article was "clarified" in November 1952. Training was defined as adequate if it qualified a surgeon for membership in the American College of Surgeons. Certification by the American Board of Surgery "in one of the surgical specialties" remained an alternative. Board certification became *the* requirement for membership in 1982, when the American College route was eliminated.<sup>1</sup>

This restriction has assured a certain standard of quality but has also excluded a few capable community confreres. A Bylaws amendment proposed in 1985 to allow acceptance of "certain outstanding members of the Nashville surgical community. . . ." was defeated.



**Figure 3.** Guest Speaker Dr. Allen Whipple (left) is pictured with Dr. Barney Brooks and President L.W. Edwards at the Annual Oration in 1942

**TABLE 1**

**NASHVILLE SURGICAL SOCIETY  
FOUNDERS**

Blalock, Alfred	Johnson, George
Brooks, Barney	McMurray, Carl B.
Burch, John C.	Pilcher, Cobb
Davis, M.B.	Pollard, Tom
Dixon, W.C.	Shofner, N.S.
Edwards, L.W.	Shoulders, H.H.
Eve, Duncan	Tigert, H.M.
	Tucker, Harlin

### Meetings

**General Meetings.** The stated organizational purpose is scientific. Clearly, though, one of the cohesive aspects of Nashville Surgical activity has been convivial socializing among members at meetings in comfortable circumstances. Some meetings have been held in hospitals and a few in hotels. From the beginning, though, country clubs have been favored, and most gatherings have been in stately Belle Meade Country Club. Occasional sojourns to other venues have invariably met with membership rancor. A typical format is to proceed leisurely through cocktails, partake of a large dinner, transact as little business as possible, and finally hear the program. Quality of presentations is documented by the assignment of a Category 1 CME status by the American Medical Association.

Most programs have addressed scientific topics. Local surgeons have realized the educational bonus of hearing nationally prominent peers discuss subjects to which they fundamentally contributed. In the



**Figure 4.** Drs. Jack Farringer, Edmund Benz, and H. William Scott Jr. welcomed Guest Speaker Dr. George Zuidema (second from left) at the Annual Oration in 1970



early years, it must have been a privilege to hear Drs. John Burch on hysterectomy, L.W. Edwards on vagotomy, George Carpenter Sr. and Ben Fowler on hip fracture, Rollin Daniel on mitral stenosis, James Kirtley Jr. on sympathectomy and bile duct repair, H. William Scott Jr. on aortic coarctation, and William Meacham on intracranial vascular lesions.

Lasting value of more recent presentations is impossible to judge. Certainly though the importance of some are unquestionable. Among these are talks by Drs. Andrew Dale on thoracic outlet syndrome, George Holcomb on pectus excavatum, William Stoney on coronary artery bypass, Michael Glasscock on surgery of the skull base, Brant Lipscomb Sr. on sports medicine, and, most recently, Eddie Reddick on laparoscopic cholecystectomy.

Ferment of society in general and the medical profession in particular have influenced recent program topics. In an effort to understand and react to changing times, more nonscientific subjects have been addressed. These have included speeches or panels on fee fixing, second opinions, Medicare, ethics, the ballooning incidence of lawsuits, availability and vagaries of professional liability insurance, and, of course, AIDS. In contrast to the scientific presentations most akin to the Society's stated purpose, I detect frustration and lack of intellectual satisfaction after such (so-called) socioeconomic programs. Membership need, though, mandates their occasional inclusion.

Current reception of programs is pretty tame when contrasted with the intellectual tilting of the "old days." There was then frequent controversy, sometimes of "hammer and tongs" severity. Certain topics guaranteed an argument. (Drs. Cobb Pilcher and Eugene Regen Sr. never approached agreement on the necessity for spinal fusion after laminectomy.) The membership was close, and blessed with honesty and

professional respect, so that the quest for truth rarely descended into unprofessional rudeness or grudge.

Today our meetings seem mighty noncontroversial. Perhaps the group is now so large that members hesitate to question or challenge an unknown speaker. Progressive specialization can silence a listener who is struggling with new and complicated information. From a behavioral standpoint, possible reasons for the more silent audience range from greater politeness to intellectual laziness. Regardless the cause, diminution of interchange cannot be healthy for the organization or its members.

According to old timers, good oratory has also been lost. In an era of sophisticated audiovisual equipment, it is easier and perhaps more informative to dim the lights, point to a screen, and read the material. (I plead guilty!) Hardly anyone, though, ever *gives a speech*. Surely all those oldies did not have golden tongues. There is consensus on the speaking skills of many, including Drs. "Heady" Shoulders (who "could give a speech on anything"), Barney Brooks, L.W. Edwards, Nat Shofner, Bill Meacham, and Bill Scott.

**Annual Oration.** A couple of traditional programs have been maintained. The Annual Oration in the spring is a formal dinner featuring a nationally (usually internationally) prominent surgeon. From Dr. Isidore Ravdin of Pennsylvania in 1941 to Dr. Keith Kelly of Mayo Clinic in 1991, there have been 50 outstanding academic surgeons, usually department chairmen. (There were no orators in 1940 and 1944.) Speakers have come from as close as Memphis and as far away as England. Geographic distribution has been so great that Johns Hopkins, with three, has provided the most speakers.

On this evening the food is better, the speaker prestigious, and the bar very crowded. The toney flavor has been criticized as ostentatious, dated, and (heaven forbid) pretentious; and there has been the occasional inconvenience of altering or renting a tuxedo. Nevertheless, I applaud the formality. In addition to showing respect for a worthy visitor, the trappings provide a rare moment of luxury and professional exclusivity (please, not elitism!). A night of conversational comradery and excellent education give relief from practice pressure and a classy stimulus to do even better work as surgeons (Figs. 3-5).

**President's Night.** Another inviolate program is President's Night. This November meeting is placed some distance from the Annual Oration, perhaps to avoid comparison. The president is beholden to say something profound and memorable, a virtual impossibility when addressing peers. Nevertheless, he gives his best, usually intoning some general topic of



**Figure 5.** Guest Speaker Dr. Keith Kelly (third from left) is pictured with Drs. Robert Ikard, Victor Braren, and William Edwards at the 1991 Annual Oration



historical or philosophic bent. The talks are consistently excellent and loom as a mighty precedent to your speaker. A recent effort was undertaken to preserve these Presidential Addresses. Our files now contain 22 of them. They represent considerable scholarship and are historically invaluable.

**Resident's Night.** Resident's Night was institutionalized in 1969, although residents had participated in programs before that. Usually three residents from Baptist, Meharry, St. Thomas, or Vanderbilt present clinical or laboratory work from their institutions. Several purposes are served. Members are kept abreast of current science in local surgical training departments. Residents get experience in presenting papers. Perhaps most important, the young surgeons-in-training and the Society are introduced to each other. Since the inception of this program, at least 15 presenting residents have become members of the Nashville Surgical Society.

## Leaders

Society members have led many important local, regional, and national medical organizations. A compilation of these is bound to be incomplete, and omissions *will* be brought to my attention. Nevertheless, even a partial listing of such a leadership record is impressive.

Twenty-five (50%) of Nashville Academy of Medicine presidents during our history have been members of the Nashville Surgical. Seven men (Drs. L.W. Edwards, Nat Shofner, Daugh Smith, Charles Trabue, James Gardner, Tom Nesbitt Sr., and George Holcomb) were TMA presidents. Two members, Drs. Harrison H. Shoulders Sr. (Fig. 2) and Tom Nesbitt Sr. (Fig. 6) were presidents of the AMA.

The Southern Surgical Society has been led by seven Nashville Surgical members. Four of the charter members, Drs. Lucius Burch (Fig. 7), John Burch (Fig. 1), Barney Brooks (Fig. 8), and Alfred Blalock (Fig. 9) were presidents of the Southern. The others were Drs. James Kirtley Jr. (Fig. 10), H. William Scott Jr. (Fig. 11), and John Sawyers (Fig. 12). Drs. Blalock and Scott were presidents of both the American College of Surgeons and the American Surgical Association.

Dr. Ben Fowler (Fig. 13) was president of the Clinical Orthopaedic Society and the American Academy of Orthopaedic Surgeons. Both he and Dr. Don Eyler led the American Society for Surgery of the Hand. Dr. Bill Hillman (Fig. 14) was president of the American Academy for Cerebral Palsy and Dr.



**Figure 6.** This handsome portrait of Dr. Tom Nesbitt Sr. was funded by the Nashville Academy of Medicine members. Donations were so generous that excess money was used to endow an annual prize given to a graduate of a Nashville medical school who is active in organized medicine

Paul Griffin was president of the Pediatric Orthopaedic Society. Dr. Tom Nesbitt Sr. was president of the American Association of Clinical Urologists. Dr. Harvey Bender was recently president of the Southern Thoracic Surgical Association.

In plastic surgery, Drs. Greer Ricketson and Jim Fleming led the Southeastern Society of Plastic Surgery. Dr. J.B. Lynch was president of the American Society of Plastic and Reconstructive Surgery and the Southern Medical Association.

Dr. Cobb Pilcher, a founder, was president of the Society of University Surgeons and the Harvey Cushing Society. Dr. Bill Meacham (Fig. 15) has well represented Nashville about the land. Among his important national positions were presidencies of the Neurosurgical Society of America, the Society of Neurological Surgeons, and the American Association of Neurological Surgery.

This is not to assert that these men achieved such notoriety because they were members of the Nashville Surgical. Still, we should be very proud of the good people accepted into our organization and their aggressive interest and productivity. Surgeons traditionally have understood the necessity for involvement.



## Society Trivia

Certain minutiae about the Society perhaps better convey its character than do the didactic facts of "the record." Among these are observations of behavior, taste, membership, and genetics:

1. The number of yearly meetings was decreased to seven in 1957 when the May meeting was dropped because of conflict with the Iroquois Steeplechase!<sup>3</sup> It is doubtful there are enough of the horsey set in current membership to justify such a cancellation.

2. The Nashville Surgical is strictly a beef-and-potatoes crowd. Woe be to any secretary who orders a menu of subversive entrees such as lamb, chicken, or fish! Characteristic of surgeons' orderly (? rigid) lives, there is unstinting disdain for gastronomic variety. No known epidemiologic comparison of members' arteries to those of other groups has been found.

3. The Society has been a mostly male organization. The first woman, Dr. Daphne Sprouse, was admitted to membership in 1961. Four have subsequently been accepted, and all five are currently active. This low tally will rise as the sex demographics of the surgical specialty change.

4. There have been 11 two-generation memberships, the families Burch, Byrd, Carpenter, Holcomb, Lester, Meacham, Miller, Nesbitt, Porch, Regen, and Shoulders. The first three-generation representation are the Edwards—Leonard, Bill, and William H., Jr. Two sets of fathers and sons have been president. Eugene Regen was president in 1954; Eugene, Jr. in 1985. L.W. Edwards, a founder, was the third president in 1942; his son, Bill, in 1989.

## Topics of Historic Concern

The Nashville Surgical Society has generally eschewed outreach. Internicine struggles have occurred, but rarely has a policy created any sort of community presence. An overview of various issues

reveals an abiding obsession with surgery and little political or other extra-organizational activity.

**Unified Surgical Training.** The Society's persistent interest in training programs was exemplified by the effort of Dr. Bill Hillman to encourage the use of all the main Nashville hospitals for a Unified Surgical Program. In April 1968, President Hillman, a stimulating educator, appointed a committee to investigate such a feasibility. A thorough report was brought in January 1970.<sup>4</sup> Membership was strongly in favor of the concept, thought a Vanderbilt professor should have oversight (though not local hospital control), and even agreed that private funds could help finance the program.

Alas, the initiative seems to have foundered on the shoals of bureaucracy and money. Hospitals soon became more competitive, care financing too complicated, and residencies too expensive.

Teaching programs still seek beds, and good non-university experience is highly valued. Certain hospital associations have been solidified (Vanderbilt-St. Thomas), and others are still changing (Hubbard-Metropolitan). The Nashville Surgical Society "saw the future" and, with Dr. Bill Hillman's prodding, sought to aid the process. Any contribution, though, was indirect, in the form of endorsement, and not as an active organization participant.

**Itinerant Surgery.** The Society has been consistent in enforcing a stricture against itinerant surgery. The American College of Surgeons has long railed against the practice of surgeons performing operations so far away from their homes or offices that they could not conveniently provide prompt postoperative care. In the 1950s a few members were found to be doing this, and the Society began speaking strongly against the practice. Resolutions passed in February 1959 and May 1960 recommended examining candidates regarding itinerant surgery and mem-



Figure 7  
Dr. Lucius Burch



Figure 8  
Dr. Barney Brooks



Figure 9  
Dr. Alfred Blalock



Figure 10  
Dr. James Kirtley Jr.



bers being dismissed if found so practicing. This prohibition was soon incorporated into Bylaws and was retained in the latest revision.

Officials of regional hospitals were initially upset with some loss of coverage by Nashville surgeons,<sup>5</sup> and resignation has taken place on account of the restriction.<sup>6</sup> The Executive Committee has investigated a member's activity outside Davidson County,<sup>7</sup> and our opinion has been sought regarding other situations.<sup>8</sup> The Society continues to stand firm. Investigations of potential transgressions are periodically necessary.

**Burn Center.** The society was very instrumental in the establishment of a Burn Center in Nashville. The challenge of creating a system out of the chaos of regional burn care was suggested by Dr. William H. Edwards to President Greer Ricketson in November 1977. Soon thereafter the tragedy of the propane tank car explosion at Waverly, Tenn., dramatized the urgent need. A committee was charged in 1978 to assess local support for such a project. Chairman J.B. Lynch reported to membership in September 1978 that the center should be available to all qualified surgeons.<sup>9</sup> The Burn Center opened at Vanderbilt in November 1983.

The Nashville Surgical Society did not create the center. Its leaders, though, recognized and described the need and early on urged its creation.

**Miscellaneous.** A few other problems have been addressed. These include a futile effort to collect money for underpaid residents,<sup>10</sup> an attempt to design a unified operative permit,<sup>11</sup> a couple of jabs at insurance problems,<sup>12</sup> and the adoption of a policy statement on the value of good emergency care.<sup>13</sup>

**Purpose.** The Society sought to reexamine its purpose in 1968. Due to perceived waning interest and

attendance, an entire program was devoted to discussing a possible change in direction. Various diagnoses for organizational angst were given and different cures proposed. It was concluded that interest might have decreased due to greater specialization. Solutions ranging from dissolution to radical restructuring of program format were discussed.

It was concluded that there was quite enough local expertise to avoid greater reliance on outside speakers, although using an occasional visiting fireman was stimulating. The introspection and catharsis seem to have reminded them all of the honor and pleasure of membership and the responsibility of support by attendance and participation. After much wrangling, it was concluded that the Society should reaffirm its old direction with a vow to *just do better*.<sup>14</sup>

## The Future

Are we now any better off than we were 23 years ago when the Society underwent its "agonizing reappraisal"? In an era of severe competition between hospitals, do members show greater fealty to those institutions and the pursuit of business than to the practice of surgery? In this environment, is there a role for professional societies other than for member resumé enhancement? Are they just clubs, worthy only for fellowship away from the house on a winter evening? Does the splintering of general surgery into more and more subspecialties make the Nashville Surgical Society irrelevant?

There is obviously then an interminable list of rhetorical uncertainties, which cannot be fairly addressed this evening. Broaching such topics is ample reminder of the continuing need for group reexamination and possibly of work undone. It is appropriate to conclude by looking at two issues that considerably concern me: membership and organizational outreach.



Figure 11  
Dr. H. William Scott Jr.



Figure 12  
Dr. John Sawyers

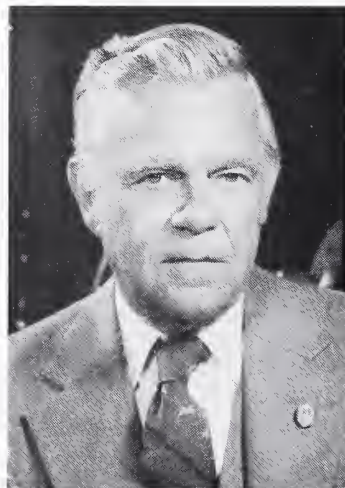


Figure 13  
Dr. S. Benjamin Fowler



Figure 14  
Dr. William Hillman



**Membership.** The original charter membership of 32 included 19 general surgeons, four orthopedists, three gynecologists, three urologists, two neurosurgeons, and one plastic surgeon. In 1990 there were 201 members, and the specialty breakdown was quite different; 79 were general surgeons. That total was inflated by including several who do primarily vascular or proctologic surgery. The field of thoracic (i.e., cardiac) surgery clearly warranted a separate listing, and included 21 members. There were 33 orthopedists, 30 urologists, and 19 plastic surgeons. Four members were in pediatric surgery, a specialty not recognized in 1940. There were two otolaryngologists (Fig. 16).

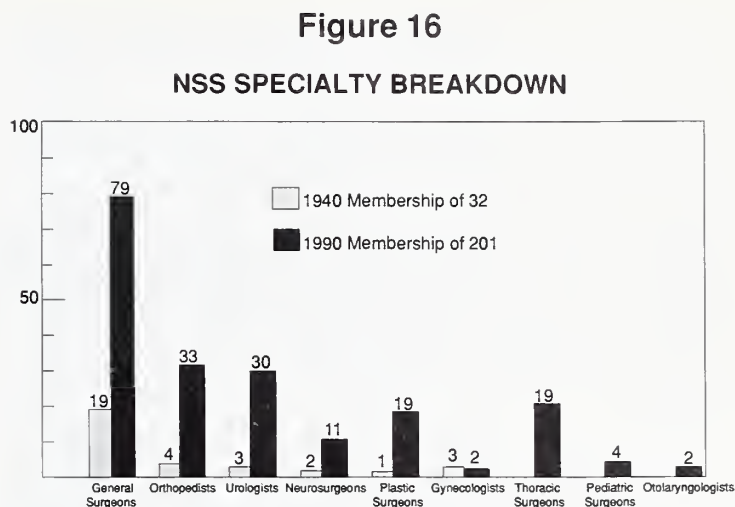
The relative diminution in general surgery and the rising presence of various subspecialties are apparent. The mother specialty has decreased from 59% to 39% of membership. The changes in constituency obviously reflect the continuing specialization of the surgical science.

Because of past controversy, a couple of categories warrant closer perusal. The first of these is gynecology. This specialty is probably more like general surgery than any other, requiring mastering many of the same abdominal surgical skills. Oncology problems are also similar.

Other than four of our friends in the senior category, two of whom are retired, no current Nashville Surgical members practice gynecology. Initially, gynecologists contributed much to the Nashville Surgical, and there has been more interchange with their local organization than any other. The Nashville Obstetrical and Gynecological Society participated in a joint program in September 1967.<sup>15</sup> Two gynecologists, Drs. John Burch and Horace Lavelly, have served as president. Dr. Burch's outstanding contributions were recognized by another special program held with the Nashville Ob-Gyn Society in February 1977.<sup>16</sup>

The question of admitting gynecologists recurred as late as 1955, when President C.S. McMurray broached the issue to membership. Dr. Joe Anderson joined the Society that year. He was the last board-certified gynecologist admitted to our rolls.

Accepting otolaryngologists has been considered several times by the Executive Committee,<sup>17</sup> but the idea was



rejected each time on vague grounds. The principle of accepting very *specialized* otolaryngologists was approved in 1973, but it wasn't until 1981 that a neurotologist became a member.<sup>18</sup> Two such practitioners now constitute the otolaryngologic portion of Society membership.

These membership observations are a plea to be broad-minded in our proposal of candidates. Standards of excellence should not be compromised. The strict criteria of board certification, community practice, and ethical behavior must be protected. However, in view of expanding surgical specialization, the temptation to be arbitrary and exclusive based on history and prejudice must be avoided. This has long ceased being a club of mostly general surgeons. We should look at worthy candidates certified by "one of the other surgical specialty boards" in order to correctly broaden our social and scientific horizons. The above-noted groups have locally functioning societies, which, however, are less active than the Nashville Surgical. Certain qualified members would be interested in our program; their membership would be mutually beneficial. The continuing need to know what is happening in associated fields is a big part of our educational obligation.

**Organizational Outreach.** In his 1976 Presidential Address,<sup>19</sup> Dr. John Sawyers questioned whether the Nashville Surgical Society should be an activist organization. His conclusion that we should be more interested and involved in "outside" influences on surgeons followed persistent urging by Dr. Andrew Dale, who "felt the Nashville Surgical Society should be the forum for discussion of socioeconomic problems. . . ."<sup>20</sup> In order to do this, Dr. Dale (a fellow Maury Countian) recommended the formation of an issues committee to make position recommendations on nonscientific matters.<sup>21</sup> President Sawyers urged our attention toward improving patient care by being, as an organization, better informed and more involved.



**Figure 15**  
**Dr. William F. Meacham**


## NASHVILLE SURGICAL SOCIETY/Ikard

That call by Drs. Dale and Sawyers to become more active in outreach has been largely ignored. In this era of rapidly changing interface between physicians, business, and government, it does seem the Society might seek greater participation in issues affecting its members. This could be done without forsaking the historic role, the learning of science in a milieu of good fellowship. Communication of our opinions to an organization with appropriate staff and mission (e.g., the American College of Surgeons, Tennessee Medical Association, Nashville Academy of Medicine, or hospital staffs) would be a reasonable mechanism. The importance of surgeons' ideas and the Society's prestige would have certain effect and in most cases would be welcome. To deny this opportunity (some would say obligation) to support surgeons and their patients might be interpreted as irresponsibility. There is also the risk that disregarding the rush of events could lead to societal atrophy and irrelevance. Dr. Dale's idea of an issues committee needs reconsideration.

### Finis

In ending this litany of facts and gentle prodding, I must thank several eminently wise, continually active, and most accomplished members for their aid in reconstructing the early years of the Nashville Surgical. These gentlemen, who generously and fully shared conversation and papers, are Drs. Ed Benz, Cloyce Bradley, Louis Rosenfeld, and Bill Meacham. All served the Society as president; the first three are

our oldest compatriots in terms of membership, being in the class of 1946. Dr. Meacham is a youngster, having entered the Society in the next class. Gentlemen, I am ever in your debt, and not just for your help on this matter. More important, we all treasure your friendship and the example set by the stunning excellence of your careers.

Now I challenge you all to build on our past, to never be too comfortable with the status quo, and to keep your leaders' and speakers' feet to the fire by critical attention to their labors. Your trust in and forbearance of me as 52nd president have been generous. I close with real gratitude to you, the members of the Nashville Surgical Society. Thank you for the opportunity to be a part of this history. 

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## HELP FOR IMPAIRED PHYSICIANS

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

### HELP US TO HELP

Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.



# Management of Penetrating Injuries to the Carotid Artery

ANNA M. HICKMAN, M.D. and JAMES V. LEWIS, M.D.

Penetrating injuries to the carotid artery carry a high morbidity and mortality due to respiratory compromise, irreversible neurologic damage, and exsanguination. The options of primary repair versus ligation remain controversial even after extensive study and debate.

### Case Presentation

A 41-year-old white man was transferred to Holston Valley Hospital and Medical Center following a domestic dispute that resulted in a small caliber gunshot wound. The bullet entered the submental region 1 cm below the mandible and to the right of the midline. It exited the neck on the right posteriorly at the base of the skull. Emergency tracheostomy was performed prior to transfer to ensure adequate airway control during the 40-minute anticipated transport time.

Upon arrival in the emergency room the patient was alert, with stable vital signs. The right pupil was nonreactive. There was swelling in the right side of the neck which did not extend past the midline. No right carotid pulse was palpable. A left carotid pulse was palpable. The tracheostomy tube was in good position, and the lungs had clear bilateral breath sounds. The abdomen was soft, nondistended and nontender. Examination of the right upper extremity revealed two superficial gunshot wounds in the forearm; radial and ulnar pulses were palpable. There was excellent grip strength on the right but there was no movement of the left upper or lower extremity to command. Patellar reflexes were absent on the left, but posterior tibial pulses were intact bilaterally.

Angiography of the right carotid showed extravasation of contrast material at the carotid bifurcation, consistent with pseudoaneurysm formation (Figs. 1 and 2).

The patient was taken to the operating room where exploration of the right side of the neck revealed a blast injury to the internal carotid artery with tissue loss of 1 cm on the internal carotid just distal to the bifurcation. The proximal portion of the internal carotid was oversewn with 3-0 prolene and the distal segment was ligated with 2-0 silk. Postoperative CT scan of the brain was consistent with a right parietal lobe infarction. The patient was rehabilitated with physical therapy, and ten weeks after the injury is successfully using a walker.

### Discussion

General management of suspected carotid artery injury includes airway control, rapid resuscitation, and immediate neck exploration when active bleeding is

present. In the absence of hypovolemia and respiratory compromise, arteriography is recommended in injuries above the angle of the mandible and below the clavicle. A normal arteriogram allows safe observation or progression to other aspects of the patient's evaluation. An identifiable abnormality on arteriogram facilitates treatment planning and placement of the incision to best expose the injury site.

The surgical management of carotid artery injuries is heavily influenced by the patient's preoperative neurologic status. There is general agreement that a patient without preoperative neurologic compromise and a technically reparable vessel should have primary repair as soon as possible. The management of the patient with a preoperative neurologic deficit, however, has involved a wide range of opinions over the past 20 years. Prior to 1973, primary repair was recommended whenever possible. In 1973, Bradley<sup>1</sup> challenged the idea by suggesting an increased risk of converting ischemic infarcts to hemorrhagic infarcts with primary repair. By 1982, three additional reviews supported early repair rather than ligation in patients with neurologic defects. Liekweg and Greenfield<sup>2</sup> suggested the primary repair of acute carotid injuries in all noncomatose patients regardless of preoperative neurologic state. Unger et al<sup>3</sup> concluded that there was a better outcome with repair than with ligation. Brown et al<sup>4</sup> stated that revascularization resulted in a better neurologic recovery than ligation.

Repair methods vary according to location of the injury and amount of tissue loss. The majority of carotid injuries in the mid-neck are reparable by arteriorrhaphy or resection with end-to-end anastomosis. Interposition prosthetic grafting may be required if a long segment of artery has been injured. Prosthetics rather than vein grafts are used to decrease time spent harvesting vein and because of accessibility. Because of the risk of graft thrombosis with resultant possible stroke, it has been recommended that grafts should be avoided and primary repair performed, if at all possible.<sup>5</sup> The number of injuries requiring grafts in two studies has been 3% and 7%, respectively.<sup>4,6</sup> Another option is division of the ex-

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**Figure 1.** AP view of arteriogram demonstrated extravasation of contrast material at the carotid bifurcation.



**Figure 2.** Lateral view of arteriogram demonstrating extravasation of contrast material and pseudoaneurysm formation at the level of the carotid bifurcation.

ternal carotid artery and bypassing from the proximal external to the distal internal carotid artery.<sup>4</sup> Ligation is an option if vascular control cannot be obtained and exsanguination is impending or if a technically sound anastomosis cannot be performed.

The management issue of comatose patients is also unresolved, as the mortality rate with preoperatively comatose patients is still high whatever the mode of treatment. It can also be difficult during resuscitation to distinguish the etiology of altered mental status. Profound hemorrhagic shock, for instance, can mimic coma from neurologic compromise. Therefore, some researchers are recommending repair of *all* carotid injuries whether or not the patient is comatose.<sup>7</sup>

## Conclusion

Although the recent literature seems to support arterial reconstruction, the optimum treatment of patients

with penetrating carotid artery trauma is still controversial. If repair is undertaken in the face of a preoperative neurologic deficit, hemorrhagic brain infarction may occur, but not in the frequency previously expected. Coma may be the result of other causes and should be evaluated accordingly.

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## **A Woman With Superior Vena Cava Syndrome**

### **Case Report**

A 31-year-old black woman was admitted to Vanderbilt University Hospital for evaluation of the superior vena cava (SVC) syndrome. The patient had been well until seven days prior to admission, when she noted right neck pain and facial swelling. During the several days prior to admission, both sides of the patient's face and her upper extremities had begun to swell. The patient was admitted to her local hospital and treated with amoxicillin/clavulonate. CT scan of the neck and chest showed subcutaneous edema and a mediastinal mass. The patient was transferred to Vanderbilt for further evaluation.

The patient denied any shortness of breath, cough, hemoptysis, night sweats, or weight loss. Tuberculin skin test had been positive for the last 17 years. She had undergone breast reduction surgery two years earlier. She took no medications.

On physical examination, she appeared to be generally healthy. The temperature was 98.6°F, respiratory rate 22/min, pulse 78/min, and blood pressure 130/82 mm Hg in both arms. The face was swollen and there was periorbital edema; the head, ears, eyes, nose, and throat were otherwise normal. The neck was swollen, and there was pitting edema of the upper extremities; there were no palpable lymph nodes. Right basilar crackles were heard. The remainder of the physical examination was normal.

The hematocrit was 31.6% and a mean corpuscular volume (MCV) was 73 fL; other tests were normal. Radiograph of the chest showed a superior mediastinal mass, bilateral pleural effusions, and bilateral basilar atelectasis.

A CT scan of the chest demonstrated a soft tissue density in the mediastinum with calcified hilar and subcarinal nodes consistent with fibrosing mediastinitis. There were bilateral pleural effusions, narrowing of the left main stem bronchus, and right lower lobe atelectasis. Injected contrast material was visualized passing from the right subclavian vein through transthoracic collaterals into the azygous vein. The SVC did not fill. There was clot in the right jugular vein.

MRI confirmed the presence of extensive mediastinal mass extending from the level of the sternal notch to the subcarinal region. The mass surrounded and occluded the SVC, surrounding the trachea and carina as well. The right pulmonary artery and pulmonary veins were obstructed, and the left main stem bronchus was narrowed. The left pulmonary artery and veins were patent.

A ventilation-perfusion radionuclide scan demonstrated no flow to the right lung. Occlusion of the right main pulmonary artery was confirmed by right heart catheterization. On pulmonary function testing, the patient's forced vital capacity (FVC) was 2.26 L (64%), forced expiratory volume at 1 second (FEV<sub>1</sub>) 1.78 L (62%), and DL<sub>CO</sub> 6.33 ml/min/mm Hg.

A bone marrow biopsy showed only decreased iron stores. Histoplasmosis complement fixation titers, immunodiffusion titers, and polysaccharide antigen were all negative.

The patient was treated with intravenous heparin followed by oral warfarin, with improvement in her facial and upper extremity swelling.

### **Discussion**

Fibrosing mediastinitis is an obliterative inflammatory process that can involve and constrict or obliterate any structure in the mediastinum. Histoplasmosis is the most common cause of fibrosing mediastinitis in endemic areas. Thirty-eight of 72 cases of mediastinal fibrosis reviewed by Loyd et al<sup>1</sup> were thought to be due to histoplasmosis on the basis of culture, special stains, or a complement fixation titer of 1:32 or greater. Fibrosing mediastinitis has also been associated with tuberculosis<sup>2</sup> and the ingestion of methysergide.<sup>3</sup>

The pathologic hallmark of fibrosing mediastinitis is excessive perinodal or capsular fibrous tissue proliferation that has a tendency to invade and destroy normal structures.<sup>1</sup> A thick (1 cm or more) fibrotic capsule surrounds a caseous focus and appears to grow by fibrous tissue invasion and destruction of the adjacent structures. The mass is composed of mature collagen deposited concentrically around the caseous focus; there is little cellular reaction within the zone of fibrosis. Round cells and young fibroblasts may be seen at the periphery.

The pathologic features of fibrosing mediastinitis may be distinguished from those of mediastinal granuloma. The mediastinal granuloma is composed of a large, often lobulated mass of coalescent lymph nodes.<sup>1</sup> This mass, encased in a relatively thin capsule, contains caseous material, epithelioid cells, giant cells, eosinophils, fibrous tissue, and lymphoid tissue. Clinically, mediastinal fibrosis causes obstruction of the major airways and vessels, whereas patients with mediastinal granuloma present themselves with minor symptoms due to compression of the bronchi, SVC, or esophagus.<sup>1</sup>

Patients with fibrosing mediastinitis commonly present themselves in the third and fourth decades. Cough, dyspnea, and hemoptysis are the most common symptoms. The SVC syndrome occurs in approximately 11% of patients.<sup>1</sup> Physical findings are nonspecific. Mediastinal fibrosis may be mistaken for pneumonia, obstructive lung disease, pulmonary embolism with infarction, neoplasm, pulmonary hypertension, and even mitral stenosis.

Radioisotope scanning of the lung often demonstrates perfusion defects, highly suggestive of pulmonary emboli. Pulmonary arteriography demonstrates a pattern of occlusion different from the endovascular obstruction produced by large pulmonary emboli.<sup>1</sup> Pul-

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Prepared by Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.

monary function tests usually demonstrate a restrictive pattern. Radiograph of the chest may show a widened mediastinum, hilar masses, and atelectasis.<sup>3</sup> CT scan and MRI are superior for delineating the location and extent of mediastinal abnormalities. Subcarinal involvement is associated with a worse outcome than either right-sided or left-sided involvement.<sup>1</sup>

Mediastinal fibrosis leads to death in at least one-third of the patients reported, most often from respiratory compromise or cor pulmonale. Patients who develop collateral vessels from the parietal pleura to the lung may have massive hemoptysis.<sup>1</sup>

Treatment with amphotericin B has been ineffective, and surgical removal of the fibrotic mass has also been

ineffective, approximately one-fourth of patients dying from a complication of surgery.<sup>1</sup> Few are helped. There is a report of one patient who had successful right lobectomy, resection of the carina and right bronchus, and reanastomosis of the trachea and left bronchus.<sup>4</sup>

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## A Case of Disseminated Intravascular Coagulation

### Case Report

A 66-year-old woman was admitted to the Nashville General Hospital because of persistent headache, diffuse abdominal pain, nausea, and vomiting. She had an extensive past medical history that included ischemic heart disease, hypertension, adult onset diabetes mellitus, chronic obstructive pulmonary disease, remote squamous cell carcinoma of the epiglottis, and an adenocarcinoma of the left breast that had been resected four years prior to admission; there was no evidence of lymph node or distant metastases. The patient had presented herself to the emergency room on two occasions within one week of admission complaining of severe headache. Physical examination revealed hypertension, but no neurologic abnormalities. CT scan of the head and lumbar puncture yielded normal results.

On the day of admission, her headache became more severe and was accompanied by diffuse abdominal pain, nausea, and vomiting. Examination revealed an elderly woman "writhing in pain." The temperature was 97.5°F, blood pressure 160/100 mm Hg, pulse 94/min, and respiratory rate 24/min. The cardiac examination revealed an irregular rhythm of atrial fibrillation without murmur or gallop. There was moderate right upper quadrant abdominal tenderness with voluntary guarding, rebound, and hypoactive bowel sounds. Again, the neurologic examination was normal. Laboratory data showed a leukocytosis (WBC 33,000/cu mm) with a left shift, platelet count 124,000/cu mm, LDH 793 U/L, serum creatinine 1.5 mg/dl, PT 14.3 seconds, PTT 33 seconds, proteinuria, and microscopic hematuria. A chest radiograph revealed evidence of chronic lung disease but no acute changes.

The initial hospital course was characterized by increasing obtundation, the development of a dense right hemiparesis, and fever. Abdominal CT scan and ultrasound were without abnormality, as were a repeat head CT scan and lumbar puncture. Subsequent laboratory tests revealed a platelet decline to 14,000/cu mm, LDH 1,700 U/L, total bilirubin 3.4 mg/dl, AST 141 U/L, PT 17 seconds, and serum creatinine 2.1 mg/dl. Fi-

brinogen was 138 mg/dl, and fibrin split products were measured at greater than 1:40. These findings were felt to be consistent with disseminated intravascular coagulation (DIC).

The patient received broad spectrum antibiotics, but cultures of blood, urine, sputum, and CSF remained sterile. While the diagnosis of thrombotic thrombocytopenic purpura (TTP) was considered unlikely, plasmapheresis was nonetheless initiated. The patient developed increasing acrocyanosis as evidence of progressive intra-arterial coagulation, and died approximately three days after admission.

Postmortem examination revealed moderately differentiated mucinous adenocarcinoma within and surrounding the left upper lobe bronchus, with metastases to multiple mediastinal lymph nodes, and lymphangitic spread in both lungs and pleura. Intravascular thrombi with resulting infarctions were found in the heart, brain, lungs, spleen, kidneys, liver, bowel, and adrenals. Finally, two large, verrucous, sterile vegetations were present on the mitral valve consistent with nonbacterial thrombotic endocarditis.

### Discussion

The hypercoagulable states of malignancy are characterized by three differing entities. *Thrombophlebitis* (Trousseau's syndrome) occurs with greatly increased frequency in patients with some types of malignancy, and often involves veins not commonly involved in ordinary deep venous thromboses. Mucinous adenocarcinomas of the GI tract are most frequently associated with Trousseau's syndrome, but tumors of the lung, breast, ovary, prostate, and others may be as well.

The patient did not have clinically evident venous thrombosis, but did suffer from the other two hypercoagulable manifestations of malignancy: *disseminated intravascular coagulation* (DIC) and *nonbacte-*

Prepared by Anthony W. Stephens, M.D., chief medical resident, Metropolitan Nashville General Hospital.

(Continued on page 332)



# The Sympathy Factor

J. KELLEY AVERY, M.D.

### Case Report

It was a typical early season high school football game. The game had just begun when a defending back was hit by a legal block and taken out of the play. The block came from the left side and almost immediately a spectator on the sidelines noted that the young player who had been blocked appeared unconscious for a very short time, during which there were seizure-like movements. The player appeared to regain consciousness and was immediately taken from the field and transported to the local hospital by ambulance. According to the observers, the injury occurred about 7:00 PM and the patient arrived at the local hospital about 15 to 20 minutes later.

The initial examination in the emergency room (ER) revealed a conscious 14-year-old with some contusions and abrasions on the left side at about the lower edge of the rib cage. Although the young man complained of pain at the site of the injury, there was very little tenderness in the area. The blood pressure was low at about 70/50 mm Hg, the pulse was 110/min, and respirations were shallow and there appeared to be splinting of the left chest on inspiration. The usual blood work was ordered and was in the process of being done. While an IV line was being started the ER physician noted that the pulse was becoming faster, the abdomen more distended, and the blood pressure falling. Blood was ordered and two units were given as soon as it became available. Although the pressure came back to the 70s and the pulse was stronger, more blood was given without the usual cross matching. It was apparent that there was continuing intra-abdominal bleeding and the patient's condition was deteriorating, so it was elected to give him the type-specific blood as rapidly as possible. A Foley catheter was placed, and no urine was found in the bladder. Within 20 minutes of the patient's arrival in the ER, a board-certified general surgeon was on hand.

The patient was intubated, a nasogastric tube inserted, and he was taken to the operating room with the diagnosis of a ruptured spleen secondary to the injury during the football game. The surgeon ordered two more units of blood to be given during the operation and opened the abdomen about one hour after the injury. As expected, the abdomen was filled with blood and the spleen was shattered into four separate fragments, which were removed along with a small accessory spleen. The splenic hilus had been controlled from the beginning of the splenectomy, and no significant abdominal bleeding was noted. On exploration of the abdomen under these controlled conditions, a perinephric hematoma was found and seemed to be stable. A large Penrose drain was placed deep into the operative site and the abdomen was closed in the usual manner. Blood loss was estimated to be about 4,000 cc.

Postoperatively, the patient continued to be profoundly hypotensive and significant quantities of blood came from around the drain and some bleeding was noted around the IV sites. A PTT was reported at 91.6 seconds and arterial blood gas analysis revealed a marked acidosis. Bicarbonate was given, and it was elected to send the patient to the teaching center primarily because the surgeon believed that a coagulation problem might be beginning and the university hospital could better manage the blood and blood products that were going to be needed.

The patient was transported by helicopter, and arrived at the university hospital about five hours after the injury. On the basis of the information obtained from the surgeon in the local hospital, he was taken directly to the operating room and explored. Bleeding continued during the operation and the PTT was reported at >100 seconds. Despite the heroic efforts of the operating team and many, many units of blood and blood products, the patient died about 18 hours after arriving at the university hospital.

A lawsuit was filed, charging the surgeon with negligent deviation from the standard of care by using uncross-matched blood, by not operating on the patient in a timely manner, and by not using appropriate means to control the bleeding.

### Loss Prevention Comments

This tragic death of a 14-year-old high school freshman was mourned by his classmates, his teammates, and the entire community. As could be expected, his parents were devastated and angry that their son had died as the result of an injury sustained in his first appearance in a high school football game. As time went on, the anger became focused on the person who could not save their son. One can only surmise that they took their anger to a plaintiff attorney who saw an opportunity to file a lawsuit that, before a hometown jury, could be made to seem like an event that could have been prevented by more appropriate action on the part of the local surgeon. He knew that he could win a judgment if he could make the 12 laymen on the jury feel like they had to do something to demonstrate their sympathy for the parents.

There are "experts" available that will be purists at the drop of a hat and find all kinds of excuses for saying that a colleague should have taken a different course of action and that it was negligent not to do so. It was from the "experts" that the charges came. Giving the type-specific blood without taking the time to cross match it with the patient's serum was a decision made in the thick of battle to save this young man's life. Who can honestly contend that it was negligent to do so? It


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Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

is easy to say in retrospect that the surgeon should have taken the patient to the operating room before he allowed the two units of blood to run in. Was it negligent to reason that the delay was justified in an attempt to better prepare the injured young man for the surgery that had to follow? After the operation, during which the doctor believed that the bleeding had been controlled, the bleeding continued. With the PTT at a level that caused the surgeon to correctly believe that a coagulopathy was beginning, was it wrong to conclude that his patient's best chances lay with the transfer to the university hospital where there would be more blood and blood products available? Negligence is *not* in making the wrong decision! Negligence is failing to take all the evidence available and bringing it to bear on the decision in a reasonable manner. Who can say that the surgeon did not do just that!

There was plenty of expert testimony to refute all the contentions made in the complaint and the "expert" opinions that supported them. There simply was no negligence involved in this case. The surgeon made careful and well thought-out decisions in his management of this tragic injury. Why then did the jury find negligence on the part of the surgeon, and award money to the parents? We are left with the conclusion that in their deep feeling of sympathy for the parents who had lost a fine son, the jury made an effort to assuage their grief with a lot of money. That effort had to be a failure!

This case and the many like it that are lost because of the jury's sympathy for the grief of a family over such a terrible loss, and the many such cases that are settled before trial because of the fear of a result like this, must make a strong case for tort reform and some kind of an alternative dispute resolution system. 


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## Vanderbilt Morning Report . . .

(Continued from page 330)

*rial thrombotic endocarditis* (NBTE). DIC may show an elusive coagulation disorder, an acute hemorrhagic diathesis, or a coagulation abnormality detected by laboratory tests alone. In the chronic state, the most common findings are elevated levels of fibrin degradation products, thrombocytosis, and hyperfibrinogenemia. In contrast, overt DIC with consumption of platelets and clotting factors, resultant hemorrhage, and arterial thrombosis is relatively rare in malignancy. The most frequently associated neoplasms are acute promyelocytic leukemia and mucin-secreting adenocarcinomas.

NBTE is characterized by the presence of sterile verrucous, bland, fibrin-platelet lesions on left-sided heart

valves. Clinically, NBTE may occur with or without DIC, and patients often present themselves with a systemic embolic event. In our case, however, no emboli were found at autopsy. Rather, all of her arterial occlusions were found to be due to thromboses. Adenocarcinoma of the lung has the highest association with NBTE, with prostate and pancreas next most common. 

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# Norplant

PAULINE S. McINTYRE, B.A., R.N., C.N.M.

The Norplant Contraceptive System, although relatively new to the United States, has been in use for almost 20 years in a number of countries. Research and development was initiated at the Population Council's Center for Biomedical Research in 1966, and the first clinical studies began in Chile in 1974. Finland became the first country to grant regulatory approval in 1983, and in 1984, the World Health Organization concluded that Norplant implants "are an effective and reversible long-term method of fertility regulation . . . particularly advantageous to women who wish an extended period of contraceptive protection." By the time the U.S. Food and Drug Administration gave its approval in December 1990, over 55,000 volunteers in 41 countries had participated in clinical trials, and more than 280,000 women had used Norplant in 17 countries where the method was already approved for distribution.<sup>1</sup>

The Norplant System consists of six flexible silastic capsules that continuously release a low dose of the synthetic hormone levonorgestrel. This progestin-only method provides continuous contraception protection for up to five years through inhibition of ovulation, thickening of the cervical mucus, and suppression of endometrial growth. The capsules are placed subdermally in a fan-like pattern in the inner aspect of the arm, using a procedure that takes about 10 to 15 minutes. Insertion of the capsules is performed under local anesthesia and causes little or no discomfort. Contraceptive protection is achieved in 24 hours when the procedure is carried out within seven days after the onset of menses; insertion of the capsules at any other time requires the use of a backup contraceptive method for the remainder of the cycle.<sup>1,2</sup>

Norplant offers the advantages of being safe, effective, and convenient; clinical trials have revealed few side effects. Moreover, it provides continuous long-term protection and yet is readily reversible. It is an appropriate method of contraception for many women, including teenagers, postpartum women, lactating women six weeks after delivery, and women unable or unwilling to use other methods. It is especially well suited to

those women who desire long-term birth spacing, those wishing to avoid the permanence of sterilization, women who have had problems with other methods, and those wishing to avoid estrogen.<sup>1,2</sup>

There are situations where the use of Norplant is absolutely contraindicated—active thrombophlebitis or thromboembolic disease, coronary artery or cerebrovascular disease, undiagnosed abnormal vaginal bleeding, known or suspected pregnancy, acute liver disease, benign or malignant liver tumors, and known or suspected carcinoma of the breast. The primary side effect appears to be bleeding irregularities (especially during the first year of use) which may include prolonged bleeding, spotting, amenorrhea, or any combination thereof. Although such menstrual problems arising from the use of Norplant are usually not serious, they may prove unacceptable for some women. Rare but more serious problems include infection at the insertion site, expulsion of one or more of the capsules, pregnancy with Norplant in place, and delayed follicular atresia.<sup>3</sup>

Despite considerable consumer and provider interest, the number of users of the Norplant System in the United States has been relatively low. The most significant barrier to its widespread use may be the system's relatively high initial costs. Currently in the range of \$500 to \$1,000, the cost includes the device and the insertion fee. Despite the cost, the Norplant System is a covered service under Medicaid in Tennessee, and some private insurance companies are beginning to provide reimbursement for it.

Amid indications of increasing acceptance, and in anticipation of escalating consumer demand, providers must be adequately trained to provide appropriate counseling, education, and patient advocacy, as well as to develop the necessary clinical skills for insertion and monitoring of the Norplant System. Limited training resources are currently available. Wyeth Laboratories, distributor of the Norplant System in the United States, has helped provide training for over 25,000 physicians, who in turn have trained other physicians and nurse practitioners. Nurse practitioner training programs, including the Gynecologic/Obstetric Nurse Practitioner program at Emory University in Atlanta, have also

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From the Division of Maternal and Child Health, Tennessee Department of Health, Nashville.

begun to provide Norplant instruction to their nurse practitioner students.

The Tennessee Department of Health (TDH) is in the process of developing a network of trained providers in order to offer Norplant through its statewide family planning program, and is developing guidelines for Norplant use that will address such areas as policy, procedures, medical management, counseling, and informed consent. Since no additional federal or state dollars have been made available to the family planning program, selection of patients (at least initially) will be limited to those with third party coverage or an ability to pay. All program patients will, however, receive information (counseling and education) regarding Norplant, its use, benefits, and risks. Program staff will also provide continuous monitoring of Norplant patients and maintain a patient tracking system.

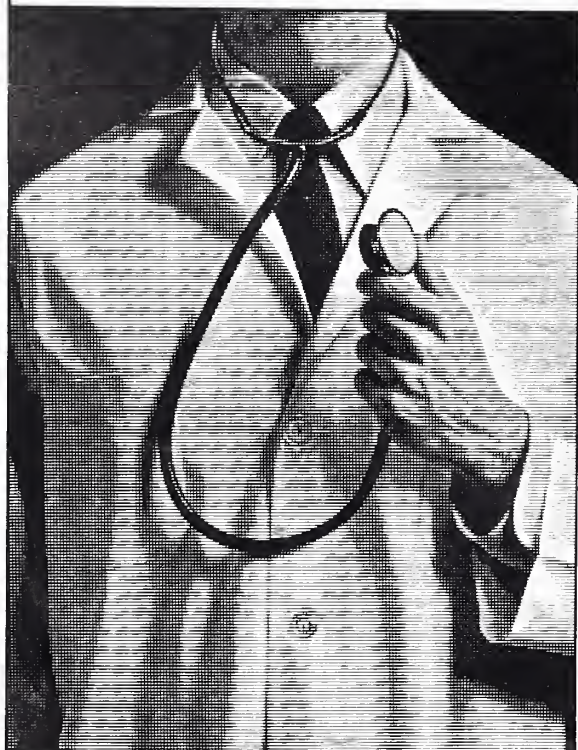
In conclusion, the Norplant System provides an effective, long-term, reversible method of contraception with few associated side effects. Its effectiveness and

safety have been proven through years of clinical trials and studies. Barriers to widespread acceptance of Norplant as a method of contraception include its high cost and the prevalence of menstrual irregularities that may prove unacceptable for some women. As health care providers, we each have a responsibility to educate and inform, thereby allowing our patients to make an informed decision regarding their reproductive health care needs. We anticipate that long-term reversible contraceptive methods such as Norplant will become integrated into the reproductive health program of our state as we approach the new millennium.

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# Patients/Physicians Disagree on Definition of Quality

ROBERT BOWERS, M.D., *Chairman*

TMA Communications and Public Service Committee

Earlier this year, TMA's CARE (Community Awareness, Resource, and Education) program conducted a survey of 450 heads of households in Tennessee. The survey was designed to determine what aspects of their health care experiences patients think are important and how well they think their physicians are meeting those needs. Concurrently, a survey was distributed to physicians to determine how they ranked those same attributes—how important they thought they were to patients and how they thought they were doing.

The results were eye-opening. While patients and physicians do agree on certain issues, there are some discrepancies in what the two groups believe is important and how they believe physicians are doing in those areas.

"It is important to note that the patient's comments were not directed solely at physicians, but towards their *entire* experiences while visiting the physician," said David Furse, president of NCG Research. NCG Research conducted the statistically valid research.

For example, patients ranked (1) "Physician is up-to-date," (2) "Physician has a good reputation," and (3) "Physician spends ample time with patients" as very important attributes. They also said that while there is always room for improvement, their physicians meet those needs well. According to the physicians' survey, physicians agree that these are important issues. They also, as a group, believe that they are addressing those issues effectively.

On the other hand, patients place a great deal of emphasis on many other aspects of the patient/physician relationship. For instance, most patients agree that reasonable fees, convenient hours, short waiting room times, and discussions with their physician about fees are important. They do not, however, think that their physicians meet those expectations well.

According to the physicians surveyed, most physicians rank those same issues as less important and are self-admittedly doing a poor job managing them.

Another example: patients believe that convenient parking, acceptable insurance policies, and modern facilities are important. But physicians rank these matters as only "somewhat" important issues to patients and

again admit they could address them better.

This scientific survey shows that patients expect more from their physicians than just good care, and while physicians are up-to-date on their medical knowledge, they may be out-of-touch with their patients' expectations.

Today's patients expect their entire health care package to be well managed. Good is no longer good enough. Today's patients are consumers; they want everything from the office staff to the fees to more than meet their expectations. The lesson here is that physicians who assume that taking good care of their patients is all that's necessary to maintain a healthy practice may not retain the careful consumer. Patients can and will make different choices if they aren't satisfied.

In order to reconcile the discrepancy between what patients expect and what physicians think patients expect, physicians must be willing to listen to their patients and respond in a whole new way. Physicians must hear patient concerns and address them by making changes in office management, insurance policies, and scheduling.

The TMA CARE program is dedicated to helping member physicians learn what their patients expect and how to address those expectations with insight and a willingness to change.

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Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

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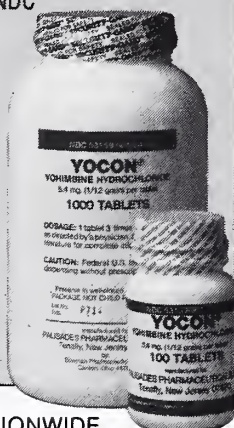
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

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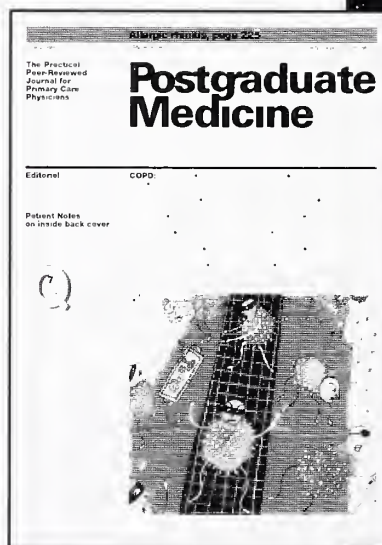
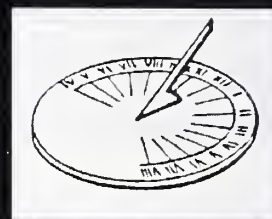
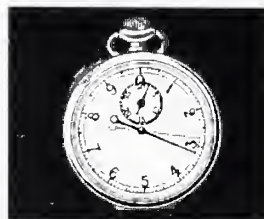


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## *Hippocrates Lives!*

Where? Here in the Tennessee Medical Association.

In the oath attributed to Hippocrates, the obligation of physicians to teach the art and science of medicine is clearly stated. While many of our TMA members are directly involved in medical education, others do not have that opportunity. Indirectly, we all help to fulfill this responsibility.

Medical education is expensive. Living costs continue to increase, and tuition spirals upward. Eons ago, the total of living expenses, tuition, and fees for my medical education was \$6,000. Now the average outlay to Tennessee students at our state supported medical schools is about \$17,000 for only one year. It is not surprising that many students require financial assistance.

Our state association has many duties that are executed with skill and dedication. One of our most outstanding programs exemplifies the interest of the TMA membership in our financially struggling medical students and in the future of our profession. We are demonstrating our belief that an education in medicine must not be accessible only to individuals from wealthy families. With great foresight, 29 years ago the TMA established the Student Education Fund. Through the activities of this organization, TMA members participate in medical education in an essential role. A portion of the annual dues of each TMA member, \$25, is allocated to the Student Education Fund. In aggregate, this amounts to \$120,000. Additional money is available from repayment of loans and interest. Outstanding loans now amount to \$1,500,000.

The initial plan of the Student Education Fund board of directors was to cover the tuition expenses of medical students in financial need, which for many years was accomplished. It is regrettable that this level of support has not been possible for several years. Because of rising costs and diminishing alternate funding sources, the number of qualified loan applicants has steadily increased. Board policy now is to assist more students at less than tuition cost. The maximum annual loan is \$3,500, with a four-year ceiling of \$14,000. Our long-term goal is to again provide the full tuition amount if adequate money becomes available.

I have enjoyed interviewing many medical student loan applicants. These fine young men and women deeply appreciate the concern and generosity of the TMA and its members in providing financial assistance. Without our help, many of them could not become physicians.

Each loan applicant is interviewed annually, and continuing contact after graduation is maintained by telephone and letters. Many hours are spent by each board member in reviewing applications, in interviewing medical students, and in attending meetings.

A special note of gratitude goes to the Student Education Fund board members, Drs. Billy J. Allen, Chattanooga, Allen S. Boyd Jr., Memphis, Robert L. Chalfant, Nashville, William L. Hickerson, Memphis, Nat E. Hyder Jr., Johnson City, Patrick J. Murphy, Memphis, Ronald L. Pack, Knoxville, to our consultant, Dr. John H. Burkhardt, Knoxville, and to TMA staff member Mr. William Wallace and his fine assistants.

*Charles E. Allen, M.D.*

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JULY, 1992

Back when mandatory continuing medical education (CME) was first being contemplated, it was widely accepted by all interested parties, I think, that except for about 5% of doctors, CME was the norm, and adequate. Long before some educator made his indelible mark on the walls of higher learning by enunciating the principle that medical education is a continuum that begins in medical school and ends only with retirement, doctors knew that and were acting on it. The 5% dereliction figure was an educated guess that had been borne out by experience. It was also accepted that those 5% were incorrigible, and required coercing. Nothing has happened in the ensuing 20 or so years to alter that estimation. What has happened, though, is that in the rush to regulate, legislative bodies across the country have pontificated to the tune composed by LBJ's Blue Ribbon Committee that "doctors don't keep up"; that little jewel of wisdom has become the bureaucratic byword that has burdened every last doctor with the impedimenta due the few lax, or occasional downright dishonest, members of the profession. Not only that, the bureaucrats, often abetted by renegade colleagues of ours behind the ivy-covered walls, keep putting in new regulations that make obtaining the education they have required of us progressively more difficult to come by.

As for the 5%, forget, first of all, the requirement for hours of CME; the necessary hours are easy enough for the miscreant to accumulate. If he is set on not being educated, he can just sit there in class and daydream of all those dollars he is losing by just being there (one of the reasons for not being there). If there is pretesting and posttesting, nearly everybody who is smart enough to have made it through medical school, even one of the Caribbean variety, can pass those. It seems never to have occurred to the boys in the back rooms that there is a heap of difference between exposing an individual to learnin', particularly if he considers it an affliction, and altering his practice patterns. An attempt was once made to document any such alterations, but that was abandoned as a bad idea that was expensive, without doing anything for patient care.

Much of the grief inflicted on the practicing doctor derives from doctors of medicine who don't do doctoring telling doctors who do what it is they must do to do proper doctoring. A perfect example is the Association of American Medical Colleges (AAMC), which years ago made it an article of faith that no proper medical education of any sort could, and therefore ought to, be carried on by anyone on the outside. All CME must be provided by medical schools; nothing else would be acceptable. As it turned out, this was a pronouncement ex cathedra by

## editorials

### Too Grievous To Bear

The scribes and Pharisees sit in Moses' seat; . . . they bind heavy burdens and grievous to be borne, and lay them on men's shoulders; but they will not move them with one of their fingers.

The Gospel according to Matthew, 23:4



an inbred, self-perpetuating governing body that either was unaware of or insensitive to the desires and sentiments of the troops back home, who would be the ones required to furnish all that CME. Even back in the halcyon days, when there was a lot of money around for CME, both deans and faculties balked. Most medical schools do now offer a modicum of course work, and the majority of the other CME courses are taught by medical school faculty members. Of course, with the community extension of so many medical schools, nearly any competent doctor who wants to become a faculty member can. I don't mention that to condemn it, but only for the record, since I think it is salubrious for all concerned—doctors, doctors to be, and patients.

A great deal of the CME, particularly the extramural part, has traditionally been sponsored by drug companies; some critics are now saying the companies do it only to push their own products. (A more realistic view, which, being reasonable, regulators could never be found espousing, is that they *sometimes* do it *mainly* to push their own products.) That is another article of faith in some quarters. I'll come back to it.

Before I begin talking tacky about the Accreditation Council for CME (the ACCME) and its activities, I need to point out a few essentials (not spelled with a capital "E"; you'll hear more about that one later, too). Education of doctors having been the reason the AMA was formed in the first place, CME had been carried on for years under the aegis of the AMA's Liaison Committee on CME, until one day gold appeared in them thar hills. Immediately some of the parties, injured by their lack of ability for one reason or another to pan for it, set up a cry that having the LCCME responsible for the doctors' CME was analogous to having the fox watching the chicken house. Hence the ACCME, which is the bastard child of a whole passel of theoretically interested parents. (It has occurred to some people, particularly bureaucrats, that it might be preferable to have disinterested ones, but no one has ever been able to decide which ones would be disinterested and at the same time knowledgeable enough to carry it off.) Except for the three commissioners from the AMA and a few others, I have never been able to tell that any of the 20 or so commissioners know, or sometimes, it seems, even care, about doctoring out in the boonies. (Boonies comprises all real estate not surrounded by ivy.) In that sense, I guess you could say the commissioners are disinterested.

Hard on the heels of the mania for formalized CME came the entrepreneurs, and it quickly became apparent that somebody was going to have to watch

that chicken house with loaded weapons; that became the primary function of the ACCME. The AMA House of Delegates, having been something less than thrilled by the whole notion of the ACCME, put the ACCME on notice that unless intrastate accreditation remained the prerogative of the state associations, as it had been under the LCCME, those associations would pick up their marbles and go home, continuing to function as they had very handily since the demise of the LCCME. Who, they said, needs it? The House has until recently successfully thwarted the ACCME in attempts to take over the system, but unfortunately such cavalier behavior seems no longer to work, and so regulations are rapidly becoming more restrictive. It no longer works likely because it is no longer tried; I think the reason it is no longer tried is probably largely cowardice, but being one of the cowards, I shan't pursue that further.

The original Essentials for CME accreditation were written by the staff of the Division of CME of the AMA, largely by Clark Mangun, M.D. That first version was boring, often obtuse, and usually murky; furthermore, it was written for medical schools, and extrapolations from it to apply to state associations were at the very least unwieldy. The AMA's Advisory Committee on CME was given the task some years later, when I happened to be its chairman, of redoing the Essentials, and also writing the Guidelines for their application. Despite a lot of interference from a variety of sources, and with the help of some others, we came up with workable documents, which became the working instruments governing accreditation of CME both by the ACCME nationally and by the state associations intrastate. The Essentials have now gone through another revision, and suddenly the whole mess has become incredibly complex. The complexity has been fostered by the natural bent of mankind to screw around with any system that ain't broke, which not only the ACCME, but also the AMA's Council on Medical Education and its CME Advisory Committee, have been hard at work at. The Council's part in all this was to change the ground rules for awarding the AMA Physician's Recognition Award (PRA), without which all the accreditation efforts of the ACCME and the state CME committees would have no meaning.

In defense of the system, and some of the things that have been happening to it lately, critical oversight of CME was, and is, absolutely necessary, because there were some real horrors out there that desperately needed cleaning up. (I say desperately looking at it from the point of view of those who care, who are actually not very many. As one who has spent a lot of time and energy caring over the last



couple of decades, I find caring becoming harder and harder to do. For the less concerned, "desperately" is patently too strong a word; "cleaning up" unembroidered would suffice, I think.) One of the things the advisory committee had just begun to grapple with when I left it about five years ago was the use and regulation of so-called enduring materials (books, tapes, and so on) in CME. That is a complex arrangement in itself, and I don't intend to pursue it here, but such are destined to play an increasingly important role in CME.

Priorities have been changing for some years now, and the changes are compounding and accelerating. We hear a lot these days about conflicts of interest, and just to keep everybody off balance, the FDA has gotten into the act as another confounding factor. What they—particularly the FDA—are talking about is purely fiscal, as though there were no other conflicts of interest. At a time when the Congress, for example, is struggling to define it, doctors are old hands at conflicts of interest. If your patient calls (or called—I have some doubts about the present generation) you from your connubial bed, you practice coitus interruptus and go to him (or more often, but not exclusively, her). Even if your own children are sick and need their Daddy (Daddies are what I know about; doctoring Mommys too, I guess), forget them. Your *patient* calls. Medicine, we were assured when I was coming along, and as I hope the students still are, is an exacting mistress. We believed it, and I still believe it, but the bureaucrats are doing their level best to destroy the mystique, along with the profession.

Keeping things in perspective, I recall that each year Eli Lilly and Co. would invite the senior class at Vanderbilt, among other schools—maybe all of them, for all I know—to visit their plant in Indianapolis at their expense, during which the students were presented all sorts of memorabilia and so on. (The program was put on hold during World War II, or at least when I was a senior, so I never got to go.) Various companies did other nice things for the budding doctor. Nobody accused them of conflict of interest, since it was no secret that their main interest lay in selling their products. Back in the '70s, Comer Pharmaceuticals, a packager and purveyor of various antibiotics, conducted a yearly series of seminars on antibiotic therapy at various exotic venues, with all expenses paid except the transportation. Their major interest, too, was clear: they wanted to sell their products. Since they also wanted to stay in business, however, they did not do it at the expense of their courses, which were strictly scientific, and delivered by the foremost authorities in the field. If for no

other reason than to keep their prescribing customers, the so-called ethical pharmaceutical houses are going to make their presentations straightforward; but try telling that to the FDA.

Suddenly, a few years back, some of our colleagues, among them a prominent medical journal editor, became stricken with a severe case of hypervirtue, and declared all such perquisites sheer bribery. Such soul searching and self-flagellation was clearly, and even admittedly, in reaction to the exposure of egregious hanky-panky by many of our elected representatives in Washington. Unlike their Washington exemplars, most doctors are generally immune to such "bribery," despite what the aforementioned (who I'm certain will label me naive) think, and almost to a man (or woman) do their level best to do their level best for their patients. What all this has done has been to seriously curtail the many worthwhile CME activities sponsored by drug houses and appliance manufacturers.

Maybe the FDA would have gotten into it anyway, but in my less than humble opinion we have our hyperfastidious colleagues to thank for the mess that CME is in. If you want to know what I really think, what I *really* think is that this is a part of the aforementioned well-orchestrated, long-term scheme on the part of the AAMC to make certain that no CME—or any other medical education—is offered by anyone except the medical schools. I wouldn't, of course, dare say that out loud; somebody might hear me. I can just hear those schemers now: "If we keep the money away from the peasants, we can steal it for ourselves." Of course, they would use a word more genteel than "steal," and I certainly don't imply that any of them would use the stolen property personally. I'm talking about corporate theft, which apparently doesn't count as a violation of the Eighth Commandment. The FDA should look sometime at the conflict of interest inherent in the pursuit of the education dollar, but I'm certain it won't, and doubtless it's better that way.

This editorial started out to cover regulations too grievous to bear. CME is only one facet, and maybe a minor one at that; the editorial was to have included OSHA and a number of other purveyors of such burdens. It got to be too long and windy, and so it doesn't; I'll get around to that another time, since I have a load to deliver in that direction. But you get the idea. In case you don't, my message is that the bureaucracy is out to do us in as a profession, and that some of our colleagues have been giving aid and comfort to the enemy. I sometimes get the possibly paranoid perception that almost everybody out there is out to do in almost everybody else so as to rake in



that last available dollar. Which is what we doctors are always being accused of doing.

J.B.T.

## Blue Angel, R.I.P.

Back in 1930, when the film *The Blue Angel* was released, movies weren't immediately available for showing at the same time in every pig track and bear wallow in the country the way they are today. Only a few copies were made, and every few days they moved on to a new venue except in a few of the very big cities, where one might play for a month if it was successful. I was probably 10 years old by the time *The Blue Angel* reached Chattanooga several months after its release, and by that time the film had been hyped enough that even a 10-year-old boy, or maybe particularly a 10-year-old boy, thought he just had to see it, especially after some of his maybe slightly older contemporaries, who had discovered that girls really were different from boys, reported being enraptured by Marlene Dietrich's wondrous gamms, all exposed and all.

It came as no particular surprise to me that my parents thought otherwise, and so, being relatively immobile, what with no available independent means of transportation, and the Tivoli Theater being nearly 10 miles distant down the mountain, I had to wait. I waited, as I recall, until the film was revived 10 or so years later, on Miss Dietrich's spectacular rise in popularity occasioned by her dedicated activities in entertaining U.S. troops during World War II. It was then, when the anticipatory vision I had harbored proved only a drab reflection through a glass, darkly, that I discovered in the pedestrian descriptions of Miss Dietrich's by now famous underpinnings, and indeed Miss Dietrich generally, the depths of linguistic poverty to which even the most lyrical of human beings can be reduced when confronted by the ethereal; I confess to being stricken myself with the same affliction even now.

According to my sources, among them my one-volume *New Columbia Encyclopedia*, Marlene Dietrich, who, I was gratified to find, rated a paragraph in the encyclopedia, making it not as stodgy as I had thought, was born into a prominent German family in Berlin on Dec. 27, 1901. After being educated in the finest private schools in Berlin and Weimar, she began her professional career as a violinist, but a wrist ailment forced her to abandon the instrument, and after studying drama, she turned to the the-

ater, appearing on the stage in Vienna and Berlin. Never the ingenue, and never innocent or naive on stage or screen, she was throughout her career noted for the intelligence and insight she brought to her roles. Her success as Lola in *The Blue Angel* turned her from the stage to filmmaking, and she followed its director, Josef von Sternberg, to the United States to star in his films, which included *Shanghai Express* and *Blond Venus*, released in 1932. Ignoring the pleas of Hitler, whom she detested, to return to her native Germany, she remained in the West, usually wearing a U.S. military uniform in public, and working steadfastly and tirelessly against the Nazis. She states in her autobiography that she felt in a sense personally responsible for Hitler's war, and wished to help bring it to an end as quickly as possible. For her efforts on behalf of our troops she was awarded the U.S. Medal of Freedom.

The encyclopedia reports that her film image was that of a sultry and ageless *femme fatale*, which struck me as apt. I can still hear her husky voice singing "Lili Marlene," the song she made popular. In the 1960s she turned from film making to appear internationally in concerts, in cabarets, and on television until she was well into her 70s, managing to maintain her beauty and her gorgeous figure. In both her real and professional life she was always the intellectual, and unfailingly industrious, kind, and considerate. For the most part she shunned Hollywood's social life, preferring to spend her time helping young artists of varied callings. She was married to Richard Seiber in 1925; the couple had one child, Maria Riva.

A broken leg sustained in a performance in Australia forced her retirement in 1975, and she spent her declining years quietly, making only occasional guest appearances on television. Marlene Dietrich (her real name) died quietly in Paris on May 6, 1992, aged 90 years. The cause of death was given simply as old age.

At the risk of seeming maudlin (which I don't mind on occasion—it is just something that sometimes happens to us senior citizens), I thought that summary dismissal, the usual and customary for such pieces as this, a rather sorry leave-taking from such an irreplaceable, shining being as Marlene Dietrich. It is not that there have not been or are not now other fine, beautiful, lovely (they are not exactly the same; she was both), capable, generous, gifted actresses in the business today, and that there are not still others waiting in the wings. It is just that Marlene Dietrich was a resplendent fragment of an era that many of us cherish, albeit we would likely not wish to return to it any closer than she could take us on screen, where

she remains eternally preserved in all her boundless glory. She has herself now helped swell the ranks of those who have departed for distant firmaments. Each such deletion leaves those of us of or close to her own generation just a bit more forlorn, though seldom any more enthusiastic about joining them there than in a return to the days when they were the reigning stars in the firmament they created.

Blue Angel, rest in peace.

J.B.T.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### **BUFFALO RIVER VALLEY MEDICAL SOCIETY**

*John Paul Crider, M.D., Parsons*

### **CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY**

*James P. Bolton, M.D., Chattanooga*  
*Gerald K. Bocker, M.D., Chattanooga*  
*William D. Drinnon, M.D., Chattanooga*  
*Henry M. Francis Jr., M.D., Chattanooga*  
*Gordon D. Graham, M.D., Chattanooga*  
*Charles L. Huddleston II, M.D., Chattanooga*  
*Andrew R. Jones, M.D., Hixson*  
*Joseph W. Minton, M.D., Chattanooga*  
*Christopher T. Moore, M.D., Chattanooga*  
*Hareesh D. Patel, M.D., Chattanooga*  
*Richard A. Peters, M.D., Chattanooga*  
*Linda K. Prater, M.D., Chattanooga*  
*Jeffrey P. Sarsfield, M.D., Chattanooga*  
*F. Warren Tingley Jr., M.D., Chattanooga*  
*James D. Wells, M.D., Chattanooga*

### **CUMBERLAND COUNTY MEDICAL SOCIETY**

*Fayez Hussin Jahed Hadidi, M.D., Crossville*

### **KNOXVILLE ACADEMY OF MEDICINE**

*Stuart J. Bresee, M.D., Knoxville*  
*John L. Law, M.D., Farragut*

### **MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY**

*John Dale Armstrong, M.D., Memphis*  
*James Shelby Bowron Jr., M.D., Memphis*  
*Ricky Reynolds Carson, M.D., Memphis*  
*Raymond Lebron Cooper, M.D., Memphis*  
*Richard S. Downey, M.D., Memphis*  
*Michael Frommlet, M.D., Memphis*  
*Joseph Eugene Holley Jr., M.D., Cordova*  
*Michael Jacewicz, M.D., Bartlett*  
*William Dean Jameson, M.D., Memphis*  
*Douglas E. Jones, M.D., Memphis*  
*Alan Jeffrey Kraus, M.D., Memphis*  
*Rahul L. Patel, M.D., Memphis*

*William A. Pulsinelli, M.D., Memphis*  
*Randolph Montgomery Richards, M.D., Memphis*  
*Paul Russell Tanner, M.D., Memphis*  
*Deborah Lynn Williams, M.D., Memphis*  
*Melanie L. Woodall, M.D., Cordova*

### **NASHVILLE ACADEMY OF MEDICINE**

*Douglas Carlton Altenbern Jr., M.D., Nashville*  
*Ralph C. Atkinson III, M.D., Nashville*  
*Ben R. Barton, M.D., Nashville*  
*Patricia Lynn Bowers, M.D., Nashville*  
*John A. Campa III, M.D., Nashville*  
*Mark Arey Deaton, M.D., Nashville*  
*Maria E. Frexes-Steed, M.D., Nashville*  
*Dale H. Jamison Jr., M.D., Nashville*  
*Miles J. Jones, M.D., Nashville*  
*Gerald Michael Moredock, M.D., Nashville*  
*Mark Francis Pelevossi, M.D., Nashville*  
*Howard Marc Snyder, M.D., Nashville*

(Students)

*Janet K. Boyles, Nashville*  
*Stephanie R. Perry, Nashville*  
*Christine Marie Stoffel, Nashville*  
*Troy R. Torgerson, Nashville*

### **NORTHWEST TENNESSEE ACADEMY OF MEDICINE**

*Jim A. Caylor, M.D., Dyersburg*  
*Kenneth Allen DeCoursey, M.D., Ripley*

### **ROANE-ANDERSON COUNTY MEDICAL SOCIETY**

*J. Brad Carter, M.D., Oak Ridge*  
*Duncan McKellar, M.D., Oak Ridge*  
*Joseph Metcalf IV, M.D., Oak Ridge*

### **WASHINGTON-UNICOI-JOHNSON COUNTY MEDICAL ASSOCIATION**

*Sue Yong Chung, M.D., Johnson City*  
*Frederic D. Seifer, M.D., Johnson City*



*Robert Walker Adams Jr., age 71. Died April 27, 1992. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.*

*John Pearce Crews, age 72. Died April 18, 1992. Graduate of University of Tennessee College of Medicine. Member of Roane-Anderson County Medical Society.*

*Robert F. Lash, age 67. Died April 29, 1992. Graduate of George Washington University School of Medicine. Member of Knoxville Academy of Medicine.*

*William David Sumpter Jr., age 75. Died April 29, 1992. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.*



## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during April 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

Warren A. Alexander, M.D., Covington  
Thomas K. Ballard, M.D., Jackson  
John B. Brimi, M.D., Hixson  
Dee J. Canale, M.D., Memphis  
Kenneth W. Carr, M.D., Martin  
Terry P. Cruthirds, M.D., Martin  
Elbert C. Cunningham, M.D., Harriman  
Laura L. Dunbar, M.D., Nashville  
Nicholas-John Economides, M.D., Memphis  
Larry M. Faust, M.D., Clarksville  
Morris L. Gavant, M.D., Memphis  
Hiranya C.K. Gowda, M.D., Nashville  
Timothy D. Gowder, M.D., Oak Ridge  
Clifton E. Greer Jr., M.D., Nashville  
Hoyt C. Harris, M.D., McMinnville  
Cauley W. Hayes Jr., M.D., Chattanooga  
Sophia J. Hendrick, M.D., Knoxville  
Tom N. Humphrey, M.D., Selmer  
Henry S. Jennings, M.D., Nashville  
James D. King, M.D., Selmer  
I.N. Kutty, M.D., Kingsport  
Donald R. Lechler, M.D., Chattanooga  
Richard H. Mays, M.D., Knoxville  
Michael A. McAdoo, M.D., Milan  
Conn M. McConnell, M.D., Madison  
Eric D. Moffet, M.D., Kingsport  
P.E. Orpet Jr., M.D., Memphis  
William J. Oswald, M.D., Memphis  
John E. Outlan, M.D., Collierville  
Robert E. Palmer IV, M.D., Memphis  
Michael S. Pippin, M.D., Nashville  
Howard C. Pomeroy, M.D., Nashville  
Jesse O. Quillian, M.D., Chattanooga  
Charles J. Ray, M.D., Chattanooga  
Toivo E. Rist, M.D., Knoxville  
John A. Shields, M.D., Nashville  
Frederick D. Slaughter, M.D., Bristol  
W.C.A. Sternbergh Jr., M.D., Chattanooga  
Anthony E.D. Trabue, M.D., Nashville  
Audrey W. Tuberville, M.D., Memphis  
A.J. VonWerssowetz, M.D., Chattanooga  
Gregory R. Weaver, M.D., Nashville

## personal news

*Fayez Hadidi, M.D.*, Crossville, has been certified as a Diplomate in the subspecialty of Cardiovascular Diseases by the American Board of Internal Medicine.

*James Payne, M.D.*, Jackson, has been certified as a Diplomate in the new specialty of Medicine/Pediatrics by the American Board of Internal Medicine and the American Board of Pediatrics.

*Larimore Warren, M.D.*, Lebanon, has been inducted as a Fellow of the American College of Surgeons.

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

- Aug. 5-7 Southern Orthopaedic Association—Chateau Whistler Resort, Whistler, B.C.
- Aug. 5-9 International Doctors in Alcoholics Anonymous—Amway Grand Plaza Hotel, Grand Rapids, Mich.
- Aug. 6-9 American In Vitro Allergy/Immunology Society—Snow King Resort, Jackson Hole, Wyo.
- Aug. 13-15 Southern Association for Oncology—Westin Resort, Hilton Head Island, S.C.
- Sept. 8-13 American Academy of Neurological and Orthopaedic Surgeons—Bally's Hotel, Las Vegas
- Sept. 18-20 Geriatrics for the Practicing Physician—Hotel Inter-Continental, Chicago
- Sept. 19-23 American Urological Association, Inc., Mid-Atlantic Section—Williamsburg Lodge and Inn, Williamsburg, Va.
- Sept. 20-24 American Society of Maxillofacial Surgeons—Grand Hyatt, Washington, D.C.
- Sept. 23-26 American Thyroid Association—Mayo Civic Center and the Kahler Plaza Hotels, Rochester, Minn.
- Sept. 24-27 American College of Nuclear Physicians—Ritz Carlton, Alexandria, Va.
- Sept. 30-Oct. 3 American Academy of Clinical Psychiatrists—Hyatt on Union Square, San Francisco

#### STATE

- Aug. 14-16 Tennessee Society of Anesthesiologists—Crowne Plaza Hotel, Memphis
- Sept. 17-19 Tennessee Chapter, American Academy of Pediatrics and Tennessee Pediatric Society—Sheraton Plaza Hotel, Johnson City
- Oct. 22-24 Tennessee Society of Internal Medicine—Gatlinburg Convention Center
- Oct. 27-30 Tennessee Academy of Family Physicians, 44th Annual Scientific Assembly—Gatlinburg Convention Center and Holiday Inn, Gatlinburg

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# Highlights of the TMA Board of Trustees Meetings

April 8 and 11, 1992

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular second quarter meetings in Nashville, April 8 and 11, 1992.

## THE BOARD:

### Committee Appointments

(A complete listing of committee appointments is published elsewhere in this issue of the *Journal*.)

### Board Positions on Resolutions

Reviewed all resolutions submitted to the House of Delegates and adopted a recommendation on each.

### Impaired Physician Program

Received a detailed report on the activities of the TMA Impaired Physician Program.

### Mid-South Foundation for Medical Care

Reviewed a second TMA request of the Mid-South Foundation for Medical Care to disclose a reviewer's credentials to the physician being reviewed. The PRO has declined to modify its policy of keeping a reviewer's credentials secret.

Agreed to direct TMA's AMA delegation to use their discretion in responding to an AMA resolution opposing the Health Care Financing Administration's plan to establish regionalized Clinical Data Abstraction Centers.

### Medicaid Lawsuit

Received a report from TMA legal counsel Marc Overlock on the progress of a lawsuit against the Tennessee Bureau of Medicaid claiming violations of federal Medicaid and civil rights laws. Since the suit may substantially affect the practices of all Tennessee physicians, the Board approved Mr. Overlock's meeting with AMA general counsel to determine AMA's view of the lawsuit.

### Assessment of Chattanooga as Annual Meeting Site

Received a report from staff on a study directed by the Board regarding Chattanooga's capacity as a TMA annual meeting site. The Board agreed to further study of the structure of the annual meeting and declined to consider Chattanooga as a 1996 annual meeting site.

### Blue Cross/Blue Shield of Tennessee

Received a report from the medical director of Blue Cross/Blue Shield of Tennessee regarding letters of complaint received by TMA.

### State Appointments

Approved the nominations of the following physicians for the Governor's consideration of appointment to: (1) Board of Medical Examiners—Drs. Oscar M. McCallum, Henderson, Hamel B. Eason, Memphis, James T. Craig Jr., Jackson; (2) Board of Electrolysis Examiners—Drs. Lawrence K. Wolfe, Nashville, Al H. Meyer Jr., Donelson, William B. Harwell Jr., Nashville; (3) Cancer Reporting Advisory Committee—Drs. Dean G. Taylor, Nashville, Daniel D. Canale Jr., Nashville, Mary P. Schatz, Nashville; (4) Emergency Medical Services Board—Drs. Larry D. Stone, Chattanooga, Earl E. Smith III, Chattanooga, Robert E. Bowers, Chattanooga, James T. Craig Jr., Jackson, Jerry D. Peters, Jackson, William Keith Lara, Covington; (5) Health Facilities Commission—Drs. Ronald A. Homra, Jackson, George H. Wood, Knoxville, R. Benton Adkins Jr., Nashville.

### 1991 Audit

Accepted the 1991 TMA audit as presented by Dr. R. Benton Adkins Jr., chairman of the Finance Committee.

### Immunization of Preschool Children

Appointed Dr. R. Gary Samples, Cookeville, to represent TMA at a state meeting focusing on raising immunization levels of preschool children to 90%.

### Resolution No. 27-92

Appointed the following physicians to serve on a task force to study the rising costs of prescription drugs, as called for by TMA Resolution No. 27-92: Drs. Thurman L. Pedigo, McMinnville, Joseph L. Willoughby, Franklin, Richard G. Lane, Franklin, Carl T. Duer, Crossville, Doran D. Edwards, Erin.

### CME Conference

Agreed to cosponsor a second annual Tennessee Conference on Continuing Medical Education with the Tennessee Hospital Association.

### Officer Elections

Elected Drs. John W. Lamb, Nashville, as chairman of the Board and Dennis A. Higdon, Memphis, as vice-chairman. Elected Dr. Duane C. Budd, Johnson City, as secretary-treasurer, and reelected Mr. L. Hadley Williams assistant secretary-treasurer.

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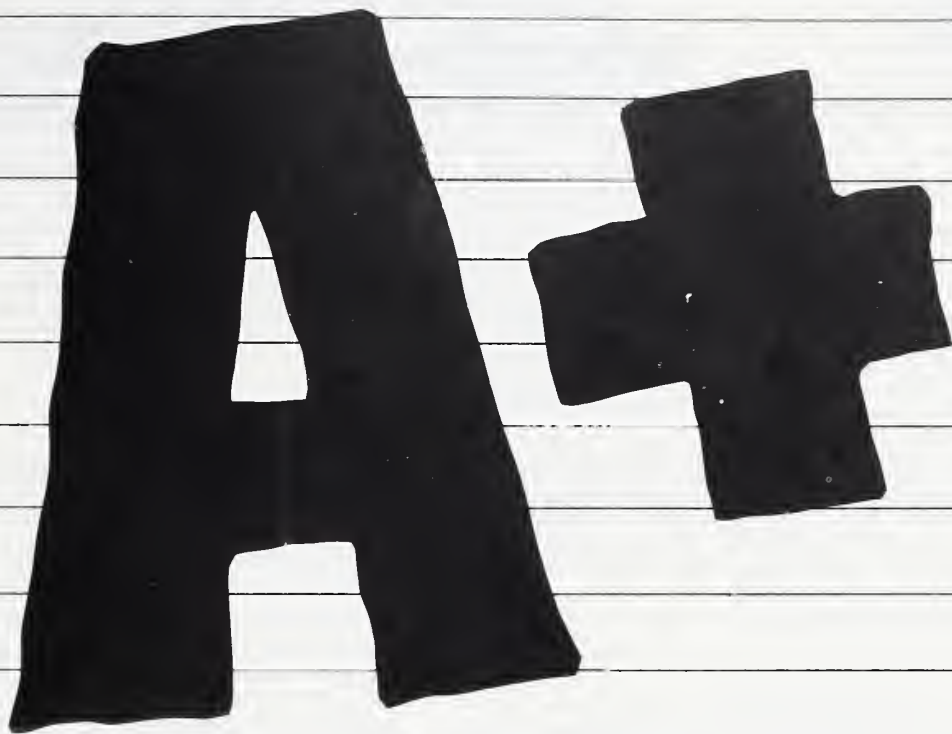
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# *Meckel's Diverticulum and Pregnancy*

KENNETH H. CLARK, M.D. and ELIZABETH A. LAWSON, M.D.

## **Introduction**

Meckel's diverticulum is the most common congenital anomaly of the alimentary canal, occurring in 1% to 3% of the population. It derives from incomplete obliteration of the vitelline duct resulting in a diverticulum at the antimesenteric margin of the ileum within 100 cm of the ileocecal sphincter.<sup>1</sup> When a symptomatic lesion does occur, it is difficult to diagnose, because its signs and symptoms are identical to such common disorders as Crohn's disease, appendicitis, and peptic ulcer disease. Turgeon and Barnett<sup>2</sup> suggest that the disturbingly high mortality rate of 6% to 7% with complicated Meckel's diverticulum is probably related to delay in diagnosis.

## **Case Report**

A 26-year-old gravida 3, para 2 was seen at 33 weeks' gestation with a one-day history of bright red blood per rectum. She had a hematocrit of 16%, down from 26% on the day before admission. She had a pulse of 120/min and a blood pressure of 90/60 mm Hg. Past history was significant in that she had had this same problem with a pregnancy two years earlier, when she was seen at 31 weeks' gestation. Gastroscopy was negative, and a Tc 99 pertechnetate scan showed no localized bleeding. Shortly after admission her bleeding stopped and she was treated conservatively. Vital signs were stable and she was able to carry the infant to term with no further bleed-

ing episodes. No other diagnostic studies were done, and the patient was lost to follow up.

Physical examination on this admission was normal except for the tachycardia, low blood pressure, and an abdominal examination consistent with a 33-week pregnancy. After receiving 8 units of packed red blood cells and fluid resuscitation, the patient's hematocrit was 22% and bleeding had slowed. The infant appeared stable on fetal monitoring. The patient subsequently developed a second episode of heavy bright red bleeding, at which time the fetus began to have repetitive late decelerations. The patient became clinically unstable, and we were unable to keep up with her blood loss. She was taken to the operating room, where a low segment transverse cesarean section was performed with delivery of a male infant, with Apgar scores of 4 and 6, weighing 5 lb 9.9 oz (2,554 gm); the infant subsequently did well. In consultation with general surgery, examination of the abdominal cavity revealed a Meckel's diverticulum approximately 30 cm proximal to the ileocecal valve. The diverticulum was fairly large, measuring 2.7 cm in width at its base and 7 cm in length. The diverticulum was full of old blood, and there was blood in the bowel distal to the diverticulum but none proximal to it. Meckel's diverticulectomy was carried out with resection of small bowel and reanastomosis. The patient subsequently did well and was discharged home from the hospital three days postoperatively with no further episode of bleeding.

## **Discussion**

The symptomatic complications of Meckel's diverticulum fall into three major categories: bleeding, obstruction, and inflammation.<sup>2</sup> Lower gastrointestinal bleeding occurred in 25% and obstruction of the small intestine in over 30% of patients in Mackey and Dineen's study of 402 patients.<sup>3</sup> Bleeding occurs when unbuffered acid from ectopic gastric mucosa acts upon adjacent ileal mucosa. Obstruction may be

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## MECKEL'S DIVERTICULUM AND PREGNANCY/Clark

caused by entanglement of the small bowel around a fibrous cord, entrapment of an ileal loop within a mesodiverticular band, intussusception, volvulus, incarceration within a hernia sac, or chronic Meckel's diverticulitis.<sup>2</sup> The third most common presentation of Meckel's diverticulum is caused by an inflammatory process such as diverticulitis, peptic ulceration of ileal mucosa, or rarely, a foreign body within the diverticular lumen.<sup>2</sup> Mackey and Dineen<sup>3</sup> report 30.9% of the symptomatic patients presented with inflammation. Alaily<sup>4</sup> reports an interesting case in which a pregnant woman who was taking ferrous sulphate tablets developed gangrene of a Meckel's diverticulum after a tablet became lodged in the diverticulum.

A review of the literature on Meckel's diverticulum and pregnancy, utilizing Medline from 1965 to the present, revealed two articles in the English language. In 1974 Alaily<sup>4</sup> reported the case described above in which the patient was seen at 18 weeks' gestation with abdominal pain and nausea. Martin et al<sup>5</sup> present a case of ectopic pregnancy and Meckel's diverticulum with vitelline duct remnant cecal volvulus, and congenital complete heart block.

Our case is the first reported of recurrent acute hemorrhage from a Meckel's diverticulum during two separate pregnancies. The hemorrhage was severe enough to compromise both mother and fetus. The differential diagnosis of Meckel's diverticulum should be considered when a pregnant patient has lower gastrointestinal bleeding.

Mayo<sup>6</sup> wrote "Meckel's diverticulum is frequently suspected, often looked for, and seldom found." This remains true today, despite advances in diagnostic techniques. Symptoms are usually the result of inflammation, hemorrhage, or obstruction. A high index of suspicion, careful history and physical examination, and radionuclide scanning should aid in the diagnosis of this problem in the bleeding patient.

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# *Cold Thyroid Nodule: Predictive Value of Fine Needle Aspiration Biopsy at Surgery*

ALEXANDER TAL, M.D.

## **Introduction**

Approximately 4% to 7% of the North American population have a palpable thyroid nodule.<sup>1,2</sup> Almost any type of thyroid disease can present itself as a palpable nodule, including benign cyst, Graves' disease, thyroiditis, enzymatic abnormalities, and carcinoma.<sup>3</sup> In most series the reported malignancy rate in thyroid nodules is about 5%.<sup>4,5</sup> Since most thyroid nodules are benign,<sup>6</sup> it is important to develop reliable criteria to identify patients at risk for thyroid cancer.

History, physical examination, and laboratory data cannot reliably distinguish between benign and malignant nodules. Certain clinical parameters such as rapid growth, hard texture, local obstructive symptoms, and involvement of the cervical lymph nodes suggest a malignant process,<sup>4,7-10</sup> but unfortunately, each of these has also been associated with benign lesions; therefore, they cannot reliably predict the probability of thyroid cancer.

Various scanning techniques and thyroid suppressive therapy have provided only limited success in differentiating between benign and malignant lesions.<sup>3,11-13</sup> Radionuclide thyroid scan cannot distinguish benign from malignant lesions, and can only suggest the probability of malignancy based on the functional status of a nodule. In review of the literature by Ashcraft and Van Herle,<sup>3,11</sup> only 16% of cold nodules, 9% of warm nodules, and 4% of hot ones were malignant. Most authors agree that the only indication for the scan in this situation is identification of hot nodules, which are rarely malignant.

In view of the limited capability of the above-mentioned procedures and techniques to distinguish benign from malignant lesions, fine needle aspiration

(FNA) has emerged as a simple and safe procedure with high accuracy in the diagnosis and management of thyroid nodules. This article presents our experience using FNA in 126 patients and compares the results to those in 134 patients who had surgery without using FNA.

## **Materials and Methods**

FNA biopsy of thyroid nodules was performed in 126 consecutive patients at Ben Taub General Hospital between January 1985 and September 1986. All patients had a thyroid scan that showed a hypofunctioning nodule (cold). The biopsy was done in the endocrine clinic with the patient supine. A 23-gauge needle attached to a disposable syringe was passed through the nodule five times, with separate smears obtained each time.

The specimens were sent to the pathology laboratory of Ben Taub General Hospital, where they were stained by the Papanicolaou technique and evaluated by a cytopathologist. When cystic fluid was found, it was aspirated and after centrifugation was sent for cytologic analysis. The cytologic diagnoses were divided into four categories: negative, when no malignant cells were found; positive, when cells characteristic of malignant tumors were found; suspicious, when there were cells suggestive for malignancy or there were Hürthle cells; and inadequate, if there were not enough cells to make a cytologic diagnosis.

The biopsies were performed by four physicians from the Endocrine Department and read by four cytopathologists from the Department of Pathology at Ben Taub General Hospital.

## **Results**

Out of 126 fine needle biopsies, 98 (77.8%) were negative, 12 (9.5%) suspicious, 4 (3.2%) positive, and 12 (9.5%) inadequate. Patients with suspicious or positive cytology were referred for surgery. Table 1

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## COLD THYROID NODULE/TaI

shows the results of cytologic diagnosis compared with the final diagnosis, based on surgical removal of the nodule. Of 98 patients with negative cytologic diagnoses, 18 elected to have surgery and tumor was found only in one patient for a false-negative rate of 5.5% (1 out of 18). The diagnosis of malignancy was confirmed in four patients with positive cytology and in three with suspicious cytology. Four patients with suspicious cytology refused surgery. The histologic findings of surgical cases are presented in Table 2. Papillary carcinoma was the most common malignancy in the suspicious/positive group (3 out of 7), and Hürthle cell carcinoma was the only malignancy in the group with negative cytology.

Of 134 patients who had surgery without FNA between 1975 and 1981, 22 (16.4%) specimens were malignant with the most common being papillary cancer (10 out of 22), and 112 (83.6%) were benign (Table 3). Table 4 summarizes the predictive value of FNA in evaluation of a thyroid nodule for malignancy. Using the FNA technique, the yield of malignancy increased from 16.4% in the non-FNA group to 58.3%. The negative predictive value of malignancy decreased from 83.6% in the non-FNA group to 41.6% (Table 5). No complications occurred with the FNA technique.

## Discussion

The technique of needle aspiration biopsy of the thyroid was initially described by Martin and Ellis in 1930,<sup>14</sup> but application of this technique in the United States in the management of patients with

TABLE 1

CYTOLOGIC RESULTS OF FNA OF THYROID NODULES

	Negative	Suspicious/ Positive	Inadequate	Total
No. of Cases	98	16	12	126
No. Operated On	18	12	1	31
False-Negatives*	1 (1/18 - 5.5%)	—	—	1
False-Positives†	—	0 (0/4 - 0%)	—	0
Accuracy	95.5%			

\*Found to be malignant at surgery.

†Number of cases diagnosed by cytology as cancer, but actually benign; does not include benign cases diagnosed as suspicious.

thyroid nodules was delayed until the 1970s.<sup>5-15</sup> Ashcraft and Van Herle compared the sensitivity and specificity of various techniques, and have shown that although FNA had an equal sensitivity, the specificity was much greater than that of other diagnostic modalities,<sup>13</sup> having accuracy of 97.5%.<sup>11</sup> The incidence of false-negative diagnoses ranges from 1% to 11%, and it diminishes with increasing experience.<sup>11,16</sup> In our study, the accuracy was 95.5%, with a false-negative rate of 5.5%.

In most series the confirmed rate of malignancy was 100% in nodules diagnosed as positive, and approximately 20% in nodules diagnosed as suspicious by FNA.<sup>11</sup> Our results revealed also 0% of false-positives, and 37.5% malignancy rate in the suspicious group of nodules.

The primary limitation of FNA is its inability to distinguish between benign and malignant follicular and Hürthle cell neoplasms,<sup>11,12,17-19</sup> because the

TABLE 2

HISTOLOGIC FINDINGS IN THYROIDECTOMY SPECIMENS IN SUSPICIOUS/POSITIVE GROUP VS. NEGATIVE

	Suspicious/Positive	Negative
Total	16	98
Operated On	12*	18†
Malignant	7 (58.3%)	1 (5.5%)
	3 Papillary carcinoma	Hürthle cell carcinoma
	3 Hürthle cell carcinoma	
	1 Follicular carcinoma	
Benign	5 (41.7%)	17 (74.5%)
	3 Adenoma	7 Adenoma
	1 Goiter	6 Goiter
	1 Multinodular goiter	2 Multinodular goiter
		1 Thyroiditis
		1 Cyst

\*Four patients refused surgery.

†Only 18 out of 98 negative were operated on.

TABLE 3

HISTOLOGIC FINDINGS IN THYROIDECTOMY SPECIMENS IN NON-FNA GROUPS 1975-1981

	No.	%
Malignant	22	16.4%
	10 Papillary carcinoma	
	6 Follicular carcinoma	
	4 Hürthle cell carcinoma	
	1 Anaplastic carcinoma	
	1 Medullary carcinoma	
Benign	112	83.6%
	57 Goiter	
	19 Adenoma	
	12 Thyroiditis	
	11 Multinodular goiter	
	10 Hyperplasia	
	3 Cysts	
Total	134	100.0%



TABLE 4

## PREDICTIVE VALUE OF FNA IN EVALUATING A THYROID NODULE FOR MALIGNANCY

Cytology	Frequency of Malignant Nodule
Positive	4/4 (100%)
Suspicious	3/8 (37.5%)
Negative	1/18 (5.5%)
Suspicious/Positive	7/12 (58.3%)

diagnosis depends on histologic rather than cytologic criteria. Therefore, in suspicious thyroid lesions we recommend surgical excision.<sup>19</sup> Another limitation is obtaining an adequate specimen.<sup>20</sup>

The rate of inadequate specimens in our survey was 9.5%. The criticism of FNA concerning the risk of needle track seeding of malignant cells has been dispelled.<sup>5,21,22</sup> None of our 126 patients who had FNA biopsy of the thyroid experienced any complications.

Based on the cytologic diagnosis of FNA, the incidence of malignancy in surgical specimens increased to 60% to 70%, as compared to less than 20% before FNA biopsy was performed.<sup>13,15,17,23</sup> In our study the incidence of malignancy increased from 16.4% to 58.3%. The predictive value of FNA depends on whether the suspicious and positive lesions are included in the same group. If the suspicious lesions are not included, then the specificity will be higher but the sensitivity of the procedure will decrease.<sup>22</sup>

The predictive value of FNA in positive lesions was 100%, compared to 37.5% in suspicious. Be-

cause there is no method currently available to identify malignant nodules, however, we included both lesions in the same category and recommend surgical excision for both.

In conclusion, FNA is a safe, simple, and efficient technique with minimal discomfort. Local anesthesia is not required.<sup>4</sup> FNA decreased the number of unnecessary surgical procedures and increased the incidence of malignancy in surgical specimens.<sup>23,24</sup> Currently, of all the modalities FNA has the best predictive value in differentiating benign from malignant disease,<sup>11</sup> and also has a substantial impact on the cost-effectiveness of the health care system.<sup>13,23,24</sup> We therefore recommend that FNA biopsy be used routinely in the diagnosis and management of a thyroid nodule.

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TABLE 5

## COMPARISON OF MALIGNANCY-YIELD IN FNA VS. NON-FNA GROUPS

	FNA	Non-FNA
Total	126	134
Operated On	31 (24.6%)	134 (100%)
Malignant	8 (8/31 - 25.8%)* (7/12 - 58.3%)† (3/8 - 37.5%)‡	22 (16.4%)*
Negative Predictive Value	5 (5/12 - 41.6%)§	112 (112/134 - 83.6%)#

\*Malignancy—yield in total surgical cases.

†Malignancy—yield in surgical cases from suspicious/positive FNA group.

‡The rate of malignancy in surgical cases from suspicious group.

§Percent of benign tumors found in FNA (suspicious/positive) group.

#Percent of benign tumors found in non-FNA group.



# Newborn Hydronephrosis With Resolution

JOHN W. BROCK III, M.D.

## Introduction

The increased use of prenatal ultrasound has greatly increased the discovery of hydronephrosis in the newborn. It is well known that in many cases the hydronephrosis is not significant, and may resolve. Herein is chronicled the case of a newborn with severe upper pole hydronephrosis that resolved.

## Case Report

The patient was the product of an uneventful full-term pregnancy during which he had had three ultrasound studies that showed significant hydronephrosis on the left. Amniotic fluid was normal.

He was referred for evaluation on his third day of life. His physical examination was unremarkable except for a palpable mass in the left upper quadrant. The sonogram (Fig. 1) was significant for severe left upper pole hydroureteronephrosis. The lower pole calices were minimally dilated, and the bladder was normal, without masses or evidence of ureterocele. Voiding cystourethrogram showed a normal posterior urethra without evidence of intravesical lesions or reflux. DTPA and DMSA (Fig. 2) renography showed excellent function bilaterally and there was no significant difference in T half-time from left to right; no function was noted, however, in the left upper pole. The patient was thought to have a duplicated left collecting system with an ectopic ureter, and it was elected to watch the patient.

The child continued to do well and returned for follow-up in six weeks, at which time another sonogram (Fig. 3) was made, showing a marked change in the left kidney. The hydronephrosis had decompressed, and there appeared to be dysplastic tissue at the left upper pole. Because the patient had had a previous voiding cystogram, he was subjected to another voiding cystourethrogram to exclude the possibility that previous catheterization had decompressed a small ureterocele and produced reflux. The child continued with normal urinalyses and was asymptomatic.

He has continued to do well and at 2 years of age he has had no urinary tract infections and no urinary problems. His ultrasound studies (Figs. 4 and 5) continue to show no hydronephrosis, and an IVP (Fig. 6) shows left upper pole exclusion. We have continued to follow him at intermediate intervals with sonography and blood pressure determinations.

## Discussion

Dejter and Gibbons<sup>1</sup> heightened the awareness of changing hydronephrosis in the newborn. They noted a 50% incidence of significant obstruction or reflux

in patients who had had antenatal hydronephrosis and initial normal postnatal sonogram. Postnatal resolution of significant hydronephrosis has not been addressed as clearly, however.

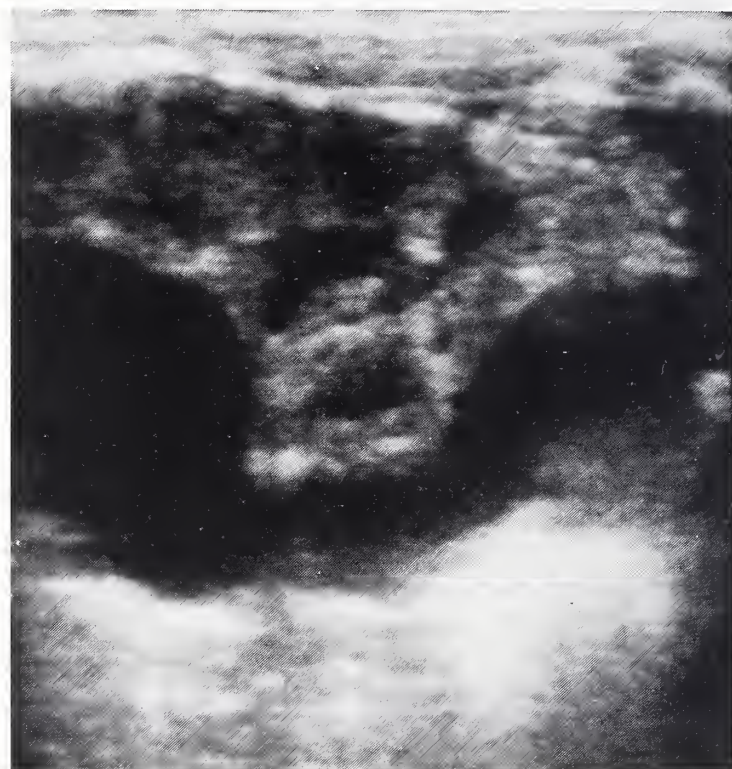


Figure 1. Sonogram of left kidney at birth.

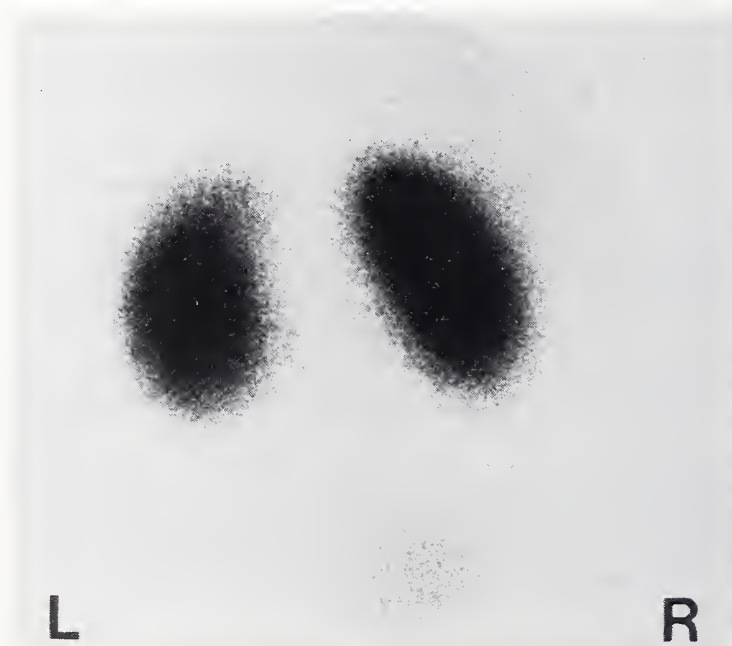


Figure 2. DMSA scan.

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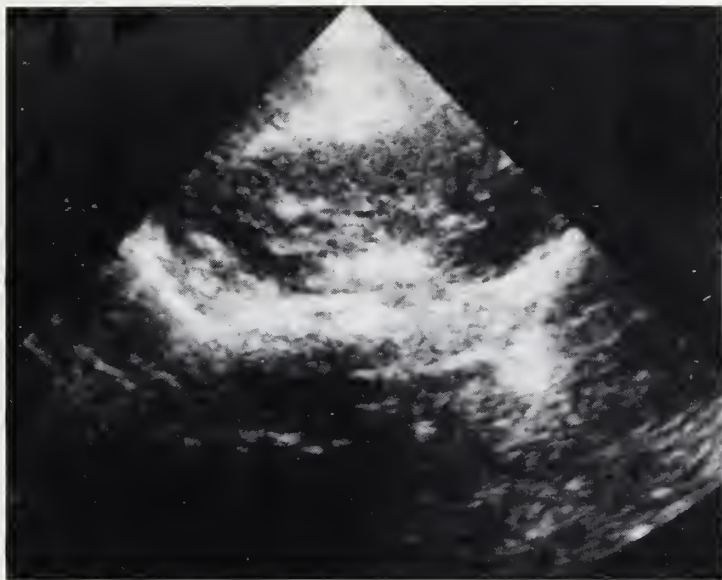


Figure 3. Sonogram at six weeks.

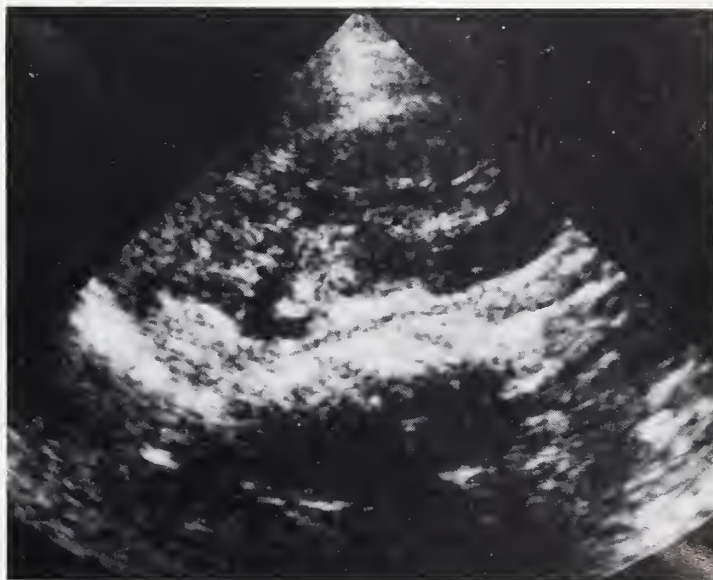


Figure 4. Sonogram of left kidney at seven months.

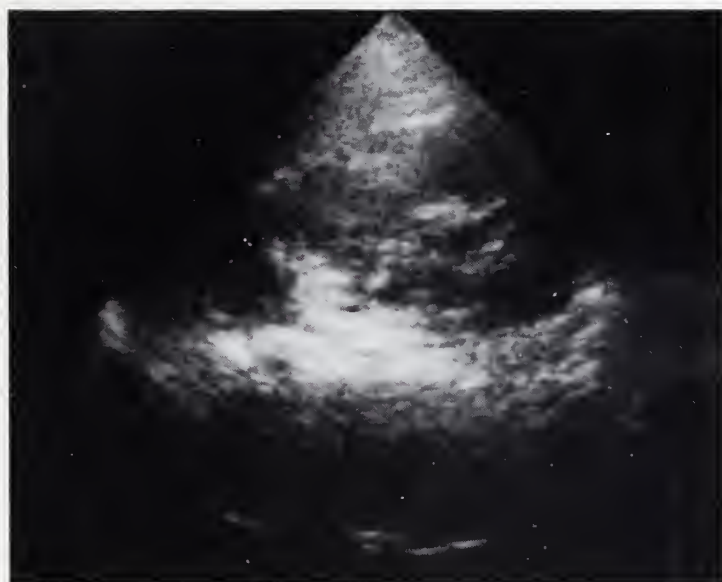


Figure 5. Sonogram of left kidney at nine months.

The management of congenital obstructive uropathy with regard to timing of surgery and functional recovery continues to be a major source of debate in pediatric urology. The debate is centered on children with ureteropelvic junction obstruction and those with obstructive megaureter. I have reported the case of a child with hydronephrosis of an upper pole moiety with little or no parenchyma and no function as demonstrated by renography. The decision to delay neonatal surgery resulted in the sparing of this child from renal exploration and possible upper pole heminephrectomy, probably because a nonfunctioning upper pole segment decompressed and has not refilled.

The management of the neonate with antenatal hydronephrosis continues to be a rapidly evolving area in pediatric urology. This case illustrates sponta-



Figure 6. IVP showing left upper pole exclusion.

neous resolution of hydronephrosis, which would never have been noted but for antenatal ultrasound. It again injects a word of caution for the pediatric urologist as to the absolute necessity for immediate surgery in the neonatal period for newborn hydronephrosis.

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# Synchronized Independent Lung Ventilation in the Management of a Unilateral Pulmonary Contusion With Massive Hemoptysis

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## Case Report

A 17-year-old, unrestrained passenger was involved in a two-car motor vehicle accident in which both drivers were killed. The patient was transported to a nearby hospital where intravenous access was established and initial x-rays obtained. His chief complaint was right posterolateral chest pain over an area of chest wall ecchymosis. He was mildly dyspneic. The patient was placed on 100% oxygen via face mask, maintaining arterial saturations above 90%.

Physical examination revealed decreased breath sounds in the right lung base and swelling of the right arm. The abdomen reportedly was soft and nontender.

Radiologic evaluation disclosed a right pulmonary contusion, fracture of both the right humerus and right radius, bilateral superior and inferior pubic ramus fractures, and a sacral fracture.

Due to the magnitude of his injuries, the patient was transported to the trauma center via helicopter. En route he became progressively more dyspneic, with arterial saturations falling to less than 85%. He was electively intubated, and soon after intubation, approximately 750 ml of bright red blood was suctioned from the endotracheal tube.

Emergency Department evaluation confirmed the right pulmonary contusion/hemothorax and found a left pneumothorax, as well as hematuria and a grossly bloody peritoneal aspirate. Systolic blood pressure at this time was 80 mm Hg. Chest tubes were inserted bilaterally, and the patient was transported to the operating room.

Exploratory celiotomy disclosed approximately 2 liters of blood within the peritoneal cavity due to a grade 4 splenic injury. A splenectomy was performed, and during abdominal closure massive hemorrhage from the endotracheal tube was again evident. Bronchoscopy showed bleeding from the posterior basal segment of the right lower lobe. A total of 2,300 ml of bloody aspirate, which had a packed cell volume of 26%, was recovered from the endotracheal tube. Arterial blood gas analysis at this time showed pH 7.14,  $P_{CO_2}$  73 torr,  $P_{O_2}$  45 torr. The base deficit was -5.7 mEq/L after infusion of 150 mEq of sodium bicarbonate. The  $FiO_2$  was 1.0, tidal volume 1,000 ml, respiratory rate 14/min, and positive end expiratory pressure (PEEP) 20 cm  $H_2O$ . The patient was also hypothermic (34°C) and coagulopathic (PT 32 seconds, PTT > 200 seconds, platelets 30,000/cu mm).

Due to the unilateral nature of the lung injury and the con-

tinued arterial desaturation, the patient was reintubated with a double-lumen endobronchial tube and transferred to the surgical intensive care unit (SICU) where synchronized independent lung ventilation (SILV) was initiated utilizing two Siemens Servo 900C ventilators. An oximetric pulmonary artery catheter was inserted upon arrival in the SICU. His initial shunt fraction was 0.46.

The patient remained pharmacologically paralyzed and sedated. Pressure control ventilation (PCV) was manipulated to adjust tidal volumes equally between the two lungs. PEEP and inspiratory:expiratory ratios were adjusted in an attempt to improve arterial saturations as monitored by pulse oximetry.

Concomitantly, resuscitation included rewarming, and infusion of 17 units of packed red blood cells, 16 units of fresh frozen plasma, 24 units of platelets, and 25 liters of crystalloid. The patient was given a loading dose of digoxin, and dopamine and dobutamine were used to maintain adequate oxygen delivery. SILV was maintained for 15 hours, by which time oxygenation and ventilation had improved and requirements for each lung had equalized.

On the third postinjury day the patient was reintubated with a single-lumen endotracheal tube, and standard ventilatory support was started using low rate intermittent mandatory ventilation (IMV) and pressure support ventilation (PSV). PEEP was titrated to maintain the shunt fraction of approximately 0.20 and the  $FiO_2$  was weaned to nontoxic levels less than 50%.

Complications included pneumonia and sepsis, and a tension pneumothorax due to rupture of a traumatic pneumatocele with the development of a broncho-pleural-cutaneous fistula. Necrotic tissue was periodically evacuated from the chest tubes.

Pulmonary function improved over the next four weeks and the patient was weaned off the ventilator. He was discharged six weeks postinjury, awake, alert, and ambulating with assistance. On follow-up the patient has returned to school and his preinjury daily activities.

## Discussion

Chest injuries contribute to about one quarter of all trauma-related deaths.<sup>1</sup> Pulmonary contusion is the most common of pulmonary parenchymal injuries associated with blunt trauma. The pulmonary contusion is a non-anatomic injury often accompanying other chest injuries, most commonly rib fractures. The magnitude of the pulmonary contusion is dependent on the amount of

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kinetic energy dissipated to the pulmonary parenchyma.<sup>2</sup> A hemothorax, flail chest, and pulmonary laceration combined with a pulmonary contusion are associated with a worse prognosis.<sup>3</sup> Patients with such injuries are at risk for developing hypoxemia, increased intrapulmonary shunting, and adult respiratory distress syndrome (ARDS).<sup>4</sup>

The pulmonary contusion has a variable pattern of distribution from discrete localized nodular densities to irregular, diffuse, patchy infiltrates. The infiltrates tend to be more peripheral than central, and may involve large areas of lung.<sup>5</sup> Hypoxemia often accompanies pulmonary contusion. In most cases, conservative management with supplemental oxygen, pain control, and pulmonary toilet is all that is necessary. However, when the lesion is extensive and the hypoxemia severe, intubation and mechanical ventilation with PEEP may be required.

The goal of ventilatory support ideally would be to reverse the primary pulmonary process and still maintain oxygen delivery. Over the last several years we have utilized a mode of therapy called "Optimal PEEP." PEEP, which raises functional residual capacity (specifically, expiratory reserve volume) and prevents collapse of unstable alveoli, is titrated to achieve a shunt fraction of approximately 0.20. Other goals include maintaining spontaneous breathing with low rate IMV and titrating PSV for patient comfort. Attempts are made to lower the  $\text{FiO}_2$  to nontoxic levels below 0.50.

In a very small number of patients, large pulmonary contusions have features that make therapy especially challenging.

Airway resistance and compliance characteristics normally are distributed equally between both lungs. However, if a unilateral or asymmetric lung injury exists, gas flow will preferentially follow the path of least resistance. Therefore, tidal volumes will be diverted away from the stiffer, diseased lung towards the more compliant, normal lung. Additionally, if PEEP is added, it will distend the normal lung disproportionately. Increased pressure in the normal alveoli may decrease blood flow to the ventilated alveoli. This blood is di-

verted to the less compliant, collapsed, and blood-filled alveoli with a consequent increase in intrapulmonary shunting. In this situation the patient may be a candidate for SILV.<sup>7</sup>

Prior to initiating SILV, the patient requires reintubation with a double-lumen endobronchial tube. The left-sided Bronchocath® (National Catheter Corp., Argyle, NY) has radioopaque markers and low pressure, high-volume cuffs. The proximal balloon occludes the trachea and the distal balloon occludes the left main stem bronchus. Inflation of both balloons provides a closed system so both lungs can be ventilated independently. Ventilatory support can be tailored to the individual needs of each lung. Adjustments in tidal volume, PEEP, I:E ratios, and pause times may be performed utilizing compliance curves or end tidal carbon dioxide measurements.<sup>7</sup>

In this case, SILV was successfully utilized in a patient who could not be adequately ventilated or oxygenated with conventional modes of therapy.

After 15 hours on SILV, the patient's pulmonary pathophysiology became a bilateral process similar to that of other ARDS patients. The patient was treated with a standard mode of therapy (high level PEEP, low rate IMV, PSV, and low oxygen fractions). Just over 48 hours was required to achieve a shunt fraction of 0.20.

In conclusion, SILV may be lifesaving in unilateral or asymmetric acute respiratory failure when conventional therapy cannot provide adequate gas exchange.

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## Shortness of Breath Induced by Standing

### Case Report

A 78-year-old woman was admitted to Vanderbilt University Hospital for further evaluation of dyspnea on exertion. She reported an episode of "pleurisy" in 1934, when "one quart" of fluid was withdrawn from her chest. She denied any other history of pulmonary disease. Two years prior to admission, the patient noted the insidious onset of progressive shortness of breath and dyspnea on exertion, exacerbated by exercise and standing, and relieved by rest and the supine position. Theophylline prescribed by her primary physician gave no significant improvement. Pulmonary function tests revealed a forced vital capacity (FVC) of 2.11 L (74% of predicted), forced expiratory volume (FEV<sub>1</sub>) 1.8 L (90% of predicted), and diffusing capacity (DL<sub>CO</sub>) 73% of predicted. Arterial blood gas studies, with the patient breathing room air, revealed pH 7.42, PCO<sub>2</sub> 27 mm Hg, and PO<sub>2</sub> 57 mm Hg. Chest x-ray showed chronic atelectasis of the right middle lobe (RML) without acute infiltrate or effusion.

The patient was referred to her community pulmonologist and admitted for further evaluation. While breathing 100% oxygen, her PO<sub>2</sub> increased from 48 to 155 mm Hg. Ventilation-perfusion (V/Q) scan was interpreted as showing a low probability of pulmonary embolus. Bronchoscopy revealed subtotal obstruction of the RML orifice with abnormal, erythematous mucosa. All cultures and stains were negative. A transesophageal echocardiogram showed a right-to-left atrial shunt of questionable significance; no other pathology was noted. Right and left cardiac arteriogram revealed normal pressures, valves, ventricles, and vessels. An atrial septal defect (ASD) was present, but was thought not to be of clinical significance. Thoracic CT scan revealed only chronic RML atelectasis and mild paratracheal adenopathy. She was transferred to Vanderbilt University Hospital for further evaluation.

At Vanderbilt, the patient reported continued shortness of breath upon standing and exercise, but denied supine shortness of breath, cough, sputum production, chest pain, fever, chills, nausea, vomiting, or hemoptysis. She had had a thyroidectomy. Medications on admission included theophylline 100 mg twice a day, Synthroid .15 mg a day, furosemide 40 mg/day, and potassium 10 mEq/day orally. The patient was a florist from Harriman, Tenn., and had also worked in a ladies' hosiery plant. She denied use of alcohol, tobacco, or intravenous drugs, as well as chemical or dust exposure. She had not kept birds.

Physical examination revealed an alert, pleasant, elderly woman without respiratory distress in the supine position. Her blood pressure was 130/70 mm Hg, temperature 98.6°F, pulse 100/min and regular, and respirations 14/min. The lungs were clear to auscultation, and the cardiovascular examination was normal, without murmurs, rubs, or gallops. Laboratory evaluation revealed only an arterial PO<sub>2</sub> of 53 mm Hg. When it was drawn, the patient was seated and breathing room air. Hematocrit was 44%. PA and lateral chest x-ray were remarkable only for chronic RML atelectasis.

The patient was admitted, and her theophylline was discontinued. Arterial blood gas studies obtained while the patient was seated and breathing 100% oxygen per mask showed a PO<sub>2</sub> of 62 mm Hg, consistent with a severe right-to-left shunt. The oxygen saturation of her blood was 92% when she was supine, but dropped to 85% when she stood up.

Pulmonary function studies showed the FVC to be 2.82 L (98% of predicted), and the FEV<sub>1</sub> 2.12 L (107% of predicted). The DL<sub>CO</sub> was 86% of predicted when corrected for hemoglobin. Echocardiogram with color Doppler demonstrated a small right-to-left shunt at the right atrial septum consistent with a patent foramen ovale. Saline contrast confirmed a small right-to-left shunt with the patient in the right decubitus position; in the left decubitus position, the shunt enlarged. When she sat upright, the shunt became severe, and the patient dyspneic. Her oxygen saturation fell from 95% to 85% to 80% in these three positions, respectively. The remainder of the examination was remarkable only for a moderately dilated aortic root.

Operative intervention was recommended to correct the patient's positional shunt. Intraoperative examination revealed a dilated proximal aorta compressing the right atrium, particularly the interatrial septum. There were two holes in the foramen ovale, one adjacent to the inferior vena cava orifice and the other in the midportion of the interatrial septum; suture closure was performed without complication. Following uneventful postoperative recovery, she had no dyspnea on standing or exertion, and her blood remained saturated with oxygen when she stood up.

### Discussion

Platypnea is dyspnea produced by the standing position and relieved by the recumbent position, the opposite of orthopnea. It has been described in association with severe emphysema, congenital heart disease, pulmonary arteriovenous malformations, and follows pneumonectomy in patients with ASD. Its mechanism depends on the underlying disease. In emphysema, platypnea has been attributed to a "diffuse zone I phenomenon."<sup>1</sup> In the lung, pulmonary blood flow is determined by the pulmonary arterial pressure, pulmonary venous pressure, and alveolar pressure. If alveolar pressure exceeds pulmonary arterial pressure, flow ceases (zone I). In the normal lung, alveolar pressure is homogeneously distributed throughout the lung, and regional differences in flow are determined by regional differences in vascular pressure. In the upright position, vascular pressures increase from the apex to the base of the lung. In emphysema, alveolar pressures may be increased diffusely, and there may be widespread areas where alveolar pressures exceed vascular pressures when the patient stands up. In patients with pulmonary arteriovenous fistulas, platypnea results from increased

Presented by Rufus Davis, M.D., medical resident, and Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.



blood flow through shunts in the dependent lung portion when the patient stands.

There have been a number of case reports of platypnea following pneumonectomy in patients with previously asymptomatic ASD.<sup>2-4</sup> A change in the pressure gradient across the ASD on standing accounts for the platypnea in these patients. This change in pressure gradient has been attributed to mechanical factors such as an alteration in the right atrial configuration, some restriction to the pulmonary vascular bed, or even hydrostatic pressure from a postoperative hydrothorax.

Most importantly, these mechanical factors can induce a right-to-left shunt in the absence of pulmonary hypertension.

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## Radiology Case of the Month

SHOBHA R. HIREMAGALUR, M.D.; SCOTT L. WILHOITE, M.D.;  
JAMES W. GIBSON, M.D.; and EAPEN THOMAS, M.D.

### Case Report

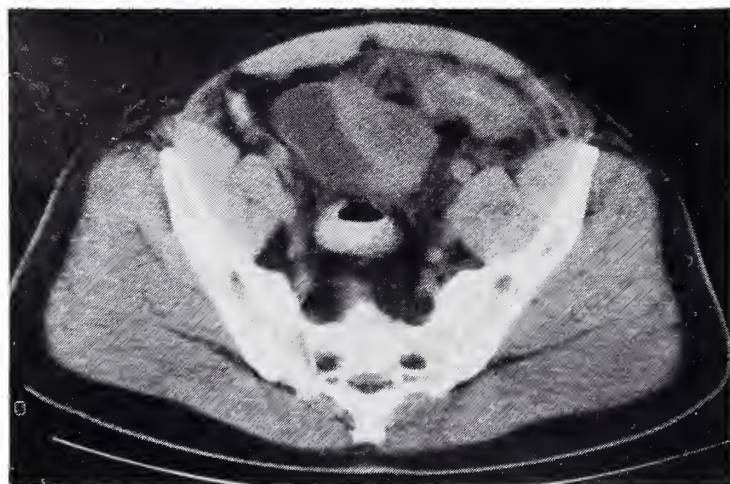
A 46-year-old man was evaluated for low grade fever for one week and more severe fever with shaking chills for 24 hours prior to admission. He had also had left-sided abdominal pain off and on for seven years since a fall, with constant pain for one week. He complained of increased pain in the left lower quadrant and left groin for three days prior to admission. He had no bowel movement in the last three days and dysuria for a week. He denied any sexual contact in the last six months.

Medications on admission included trazodone, and ibuprofen as needed for fever and pain.

Physical examination revealed a well-built man with a temperature of 103.8°F, pulse 96/min, respirations 20/min, and a blood pressure of 118/60 mm Hg. Positive findings included a palpable mass in the suprapubic-left lower quadrant area, which was firm, tender, and fixed. The rest of the abdomen was soft, without guarding; bowel sounds were hypoactive. Rectal examination revealed questionable "bogginess" at the area of left lobe of the prostate, with minimal tenderness. Hemocult test of the stool was negative, and genital examination was within normal limits.

Laboratory tests showed a WBC count of 8,000/cu mm, hemoglobin 13.3 gm/dl, hematocrit 39.3%, platelet count 262,000/cu mm, with 84% polymorphonuclear leukocytes. Electrolyte analysis and routine urinalysis were within normal limits. Plain roentgenogram of the abdomen showed a soft tissue mass in the left lower quadrant. CT of the abdomen is shown in Fig. 1. The most likely underlying diagnosis is:

- (1) Crohn's disease
- (2) Diverticular disease of the colon
- (3) Carcinoma of the colon
- (4) Prostatitis
- (5) Hematoma (infected)



**Figure 1.** There is thickening of the wall of the colon with adjacent irregular fatty changes. There is extrinsic pressure on the left margin of the fundus of the urinary bladder by a mass inseparable from the bladder itself.

From the Departments of Medicine and Radiology, Johnson City Medical Center Hospital, and the James H. Quillen College of Medicine, East Tennessee State University, Johnson City.

CT of the abdomen, as revealed in Fig. 1, showed thickening of the wall of the descending and sigmoid colon segments with adjacent irregular fatty infiltrative changes. There was extrinsic pressure on the left margin of the fundus of the urinary bladder by a 4-cm mass inseparable from the bladder itself.

Ultrasound of abdominal pelvic region revealed a mass lesion above the urinary bladder which compressed the dome of the bladder. The lesion measured 4 × 5 cm and showed irregular margins. The mass displayed complex echogenicity and was consistent with an inflammatory mass.

A careful flexible sigmoidoscopy was done. The instrument could not be passed beyond 30 cm due to what appeared to be extrinsic compression of the bowel.

The patient's temperature in the meanwhile defervesced with empiric antibiotic coverage. Subsequent laparotomy confirmed the presence of a large inflammatory mass, which was adherent to the anterior surface of the urinary bladder and to the left lower abdominal wall. The mass was freed using sharp and blunt dissection and was found to be associated with the sigmoid colon. A sigmoid colectomy was done along with a descending colostomy and Hartman procedure with drainage of the abscess as a first stage operation. Culture of the abscess fluid showed *Bacteroides fragilis*. Histology revealed diverticulitis and diverticulosis of the colon and sigmoid, with abscess wall. The patient's postoperative recovery was uneventful.

### Discussion

Diverticular disease of the colon is uncommon before age 40. Incidence is 5% in the fifth decade, increasing to 50% or more in the ninth decade. The most common site of diverticula is the sigmoid, which is involved in 95% of the cases.<sup>1</sup>

Diverticulosis is usually asymptomatic. If symptomatic, it usually presents itself with pain, constipation or diarrhea, flatulence, dyspepsia, or bleeding. It has been estimated that 10% to 25% of persons known to have colonic diverticula will develop diverticulitis at some point in their lives.<sup>2,3</sup> When diverticulitis intervenes, the patient develops pain, fever, and chills; anorexia, nausea, and vomiting may occur, and change in bowel habits and urinary problems may arise. Laboratory tests reveal a leukocytosis, and urinalysis shows RBCs or WBCs if urinary bladder and ureter are inflamed. Occasionally, diverticulitis presents itself with one of its complications, often perforation, which may be walled off by the omentum of neighboring structures, e.g., the urinary bladder.

Intra-abdominal abscess in general also presents itself with pain close to the abscess site, weight loss, anorexia, nausea, vomiting, altered bowel habits, and sometimes a palpable tender mass. Differential diagnosis of a left lower quadrant abscess is usually left colonic perforation secondary to diverticulitis, Crohn's



disease, or carcinoma.<sup>4</sup> Abscesses usually localize close to the site of the primary process. Those secondary to Crohn's disease are often in the central peritoneal cavity. Where sigmoid diverticulitis leads to abscess, its location often is in the left paracolic gutter and pelvis.

Ultrasonography and CT are two good tools for the diagnosis of intra-abdominal abscesses. In a prospective study comparing computed tomography, ultrasound, and gallium imaging, McNeil et al<sup>5</sup> noted that all three modalities had similar sensitivities (greater than 90%) in the detection of abscesses. The overall diagnostic yield could be increased slightly by combining two of the studies.<sup>5</sup> Ultrasound is good for detecting abscesses in the right upper quadrant, retroperitoneum, and pelvis,<sup>4</sup> but it cannot differentiate an abscess from other fluid-filled structures. Also, it is not helpful in postoperative evaluation when a lot of bowel gas is present. CT is useful if there are no focal symptoms, is good in postoperative cases, and is good to detect abscesses in the left upper quadrant or mid-abdominal region. Both procedures give quick results, are noninvasive, and can be used for guided aspiration. CT shows the true site of inflammatory process in the colon wall and surrounding soft tissues, but CT features of an abscess may be nonspecific.<sup>6</sup>

Low density abdominal masses with CT features similar to those of abscesses can be produced by hematomas, bile collections, peritoneal implants, pseudocysts, necrotic tumors, loculated ascites, lymphocysts, and benign simple cysts. A proper clinical setting with the CT findings of an abscess, however, usually means an abscess is present.<sup>6</sup> Extraluminal gas is the most specific, though not pathognomic, feature of abscess on CT. Slightly more than one-third of abscesses show gas by CT.<sup>7,8</sup> Small bubbles or air-fluid interfaces are present. Abscesses may appear as homogeneous, low attenuation cystic masses. There is obliteration of extraperitoneal fat, with thickening of adjacent bowel wall, fascia, or muscle. Finding "dirty fat" should make one search for a source of inflammation or abscess. Inflammatory changes in the pericolic fat are the most common CT findings in diverticulitis.<sup>9</sup> Thickening of the colon wall should suggest the diagnosis of diverticulitis in the appropriate clinical setting.<sup>9</sup>

Contrast enemas have been used in the diagnosis of the diverticulitis, but they cannot assess the full extent of pericolic pathology. As compared to contrast enema, CT more accurately defines the extent of pericolic inflammation, differentiates simple inflammation and mild pericolic edema from frank abscesses, and shows remote abscesses and urinary tract involvement.<sup>9</sup>

Infecting organisms commonly include the usual bowel organisms—a mixture of aerobes and anaerobes. Of the aerobes, the gram-negative organisms—*E. Coli*, *Klebsiella*, *Proteus*, and *Pseudomonas*—predominate.


Of the anaerobes, *Bacteroides fragilis*, *Clostridium* species, peptostreptococci and peptococci predominate.

Crohn's disease is better diagnosed by barium studies. They detect early subtle lesions, colonic narrowing, fistula formation, "skip areas," deep linear ulcerations, and sinus tracts. X-ray abnormalities are most often detected in the terminal ileum with or without involvement of cecum and ascending colon.<sup>10</sup> CT is also helpful in evaluating the extraluminal extent of Crohn's disease.

Prostatitis usually causes low back pain, perineal or testicular discomfort, mild dysuria, and lower urinary obstructive symptoms.<sup>11</sup> Patients with prostatic abscess are mostly afebrile and have urinary retention or dysuria. Rectal examination may reveal prostatic tenderness, prostatic hypertrophy, or no abnormality.<sup>4</sup>

Malignancy would be important in the differential diagnosis in a less acute situation. Carcinoma may produce bowel wall thickening, but the pericolic change would be unusual in malignancy without perforation.<sup>9</sup>

Treatment of severe attacks of diverticulitis with signs of peritoneal irritation, abscess, or perforation entails administration of intravenous antibiotics followed by surgical drainage or resection. Diverting colostomy with resection of the involved segment of the colon is the first step, followed by reanastomosis as a second stage operation.

ANSWER: (2) Diverticular disease of the colon (with abscess formation). 

#### Acknowledgment

We thank Miss Cathy L. Burleson for her assistance in preparation of this manuscript.

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## Interdisciplinary Care in a Rural HIV Treatment Center

PEGGY A. ALSUP, M.D., M.P.H. and JUDY P. NARRAMORE, R.N., M.P.A.

The Middle Tennessee Region of the Tennessee Department of Health (TDH) has opened a rural HIV treatment clinic—the only one of its type in Tennessee and one of the few of its kind nationally. Located at the regional office facility in Columbia, the Regional HIV Treatment Center was established to make comprehensive, outpatient medical care more accessible to human immunodeficiency virus (HIV) infected persons in many Middle Tennessee nonmetropolitan communities.

The magnitude of HIV and AIDS in the Middle Tennessee Region has increased at a rate faster than the national or state average for the past two years. On Jan. 1, 1990, there were 54 cases of AIDS in the Region. By Jan. 1, 1992, the caseload had increased to 147. During this same time period, the state increase was 27%; the United States increase was 16%.

The demographics of HIV in rural Middle Tennessee differ from those found in the state's metropolitan areas. One emerging pattern is a higher percentage of HIV infection in the non-white population. In 1991, 62% of the Region's HIV-positive patients were non-white, contrasting with Tennessee metropolitan areas in which 10% to 15% of those tested positive were non-white. Secondly, early entry into medical care in nonmetropolitan areas is complicated by several factors. Rural populations tend to underestimate their risk of infection, thereby allowing the development of a reservoir of infection in small communities. This is particularly true with the rural black population which still views AIDS as an urban, white, homosexual epidemic that does not represent a hazard to them. Public perception that HIV is not a rural problem often leads to delays in HIV testing until symptoms appear.

A lack of medical insurance and public clinics represents additional barriers to early care. Many Middle Tennesseans lack private health insurance, even though the majority are working. The Regional HIV Treatment Center is the only publicly funded, rural HIV clinic in the state. Hospital-based HIV outpatient treatment facilities are nonexistent in Middle Tennessee, in marked

contrast to urban areas, where large public hospitals and medical school teaching hospitals often provide care to indigent HIV patients.

Other problems encountered by HIV-infected individuals in rural areas are the travel distances required to seek care, and the lack of public transportation, even in areas where care is available. Physicians with the skills or experience necessary to manage HIV infection are clustered in counties surrounding Nashville, and are not readily accessible to much of the needy Middle Tennessee Region population. The Region comprises about 25% of the state cases, and prior to the opening of the Regional HIV Treatment Center, some patients were forced to travel for over two hours (one way) to receive care.

Focusing on this critical need for comprehensive, interdisciplinary treatment services in a rural outpatient setting, the Regional HIV Treatment Center registered its first patient on June 26, 1991, and has since enrolled over 30 patients, averaging one to two new patients weekly. Patients currently range in age from 22 to 50 years, and are primarily drawn from the 24 counties of Middle Tennessee. The target population consists of HIV-infected persons who lack the financial resources to obtain care, or who reside in a community in which the needed level of care is not available.

Budget constraints lead to Center staffing with in-kind TDH personnel. These individuals have full-time jobs in other areas, but volunteered for reassignment of duties to accommodate clinical coverage at the Center. The Center, however, is a 1992 recipient of a United Way of Middle Tennessee Community AIDS Partnership Grant, which funded the employment of a full-time family nurse clinician case manager to expand clinical operations and community outreach efforts.

The Regional HIV Treatment Center focuses on medical/social case managed care, incorporating primary medical HIV care, risk reduction counseling, dental screening, nutrition education, and social services. The management of HIV cases involves an interdisciplinary approach; the interdisciplinary team at the Regional HIV Treatment Center consists of a physician, family nurse clinician case manager, public health

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From the Tennessee Department of Health, Middle Tennessee Regional Office, Nashville.



nurse, nutritionist, disease intervention specialist, dentist, social worker, and health educator/counselor. Each team member develops with the patient a care plan in which all patient problems, objectives, and interventions are identified. The individual discipline plans are then discussed at the team meeting held at the end of each clinic session. Team members provide referrals to any discipline not represented on the team, such as mental health. The emphasis of the team is on prevention or management of clinical illness, hope, and development of responsible and positive patient attitudes. Much time is spent helping the patient develop the feeling that he has control over his life and responsibility for his health care.

Highly specialized medical consultation is provided by an internationally known clinical retrovirologist. Unlike most HIV treatment facilities, the Regional HIV Treatment Center operates independently of a hospital, but a unique arrangement has been established whereby community physicians hospitalize patients when necessary and provide consultation on request. These arrangements enable the Center to provide comprehensive and progressive co-managed care with private providers.

The Regional HIV Treatment Center has demon-

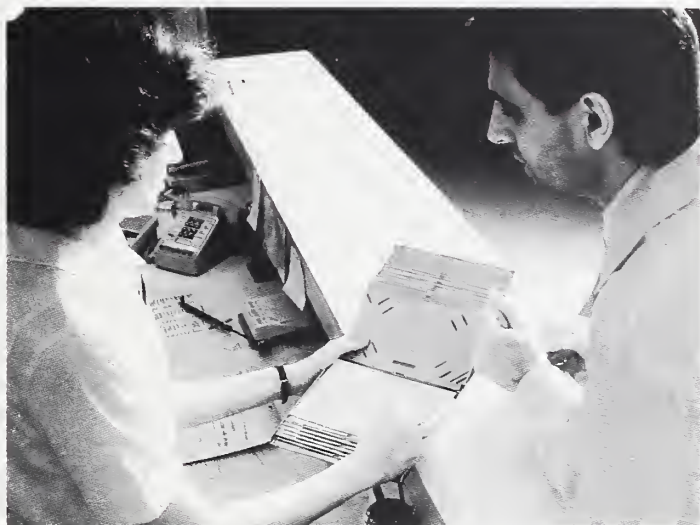
strated that it can effectively address an unmet need in Middle Tennessee by providing a high level of care in a rural, outpatient setting. The home-like, nurturing environment at the Center helps reduce patient anxiety and aid in patient care compliance. Weight gain for patients who have entered the Center at less than ideal body weight has ranged between 7 and 20 lb over a period of two weeks to five months. To date, only two patients have required hospitalization, even though five cases of clinical AIDS have been diagnosed. The low hospitalization rate (6%) and brief duration of the hospital stay (average three days) further distinguishes the Center as a cost-effective method of care.

While the devastating impact of the AIDS epidemic became apparent in urban America during the 1980s, the complex medical/social issues that make up the challenge of rural AIDS remain inadequately addressed. In view of limited resources and increasing disease, and as persons with HIV develop clinical AIDS, there will continue to be a significant impact on the public health care system. Although the Regional HIV Treatment Center cannot solve all the problems which HIV/AIDS patients in rural Middle Tennessee communities encounter, it is serving a special purpose in the Middle Tennessee Region.



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# HELLP!

J. KELLEY AVERY, M.D.

### Case Report

A 33-year-old deaf woman reported to the OB-GYN specialist. She was gravida 1, para 0, and gave a history of last menstrual period on May 10, 1990. There were no significant factors on history that were alarming. She was told that the expected date of conception was about Feb. 20, 1991. Physical examination revealed blood pressure 110/62 mm Hg, weight 134 lb. The uterus was enlarged compatible with the history, and the urine showed a trace of protein.

She was seen at the usual intervals. The urine consistently showed a trace of protein, and the patient's weight gain was about 5 lb per month. Her blood pressure remained in the normal range. At about 20 weeks she had gained almost 40 lb, had 2+ edema, and the urine continued to show protein. Shortly after this visit, her husband called in to report nosebleeds, hemoptysis, and bruising. She was told to come to the office, but she did not return until her regular visit two weeks later. There was no office record of her husband's call or of the advice he had been given.

There was no documentation of nosebleed, hemoptysis, or bruising at that next visit. She continued to show protein in the urine and this time the edema was graded at 1+. The weight gain continued to be about 2 lb a week. On this visit she was told to take Epsom Salts in orange juice each morning. After this visit, the patient called in stating that she had been "sick" during the night.

At about 36 weeks she came in for a routine appointment. Her examination showed that she had gained over 50 lb. She had 2+ protein and her reflexes were described as 2+ with no clonus. She was told "if you feel bad again, you should come into the hospital." The urine was to have been sent to the laboratory for a complete urinalysis on order of the attending physician, but it was not sent. She was given a prescription for compazine suppositories, but the prescription was not recorded in the office record. The patient came to the hospital within a few hours of the office visit.

The routine hospital admission permit was signed by the patient, which stated in part, "Attending physician and the physician of his choice will perform delivery, therapeutic operations, or procedures as his judgment may dictate on the basis of findings during the course of said surgery. The attending physician has discussed with and explained nature and purpose of operation, complications, no warranty or guarantee etc., etc." The admitting nurse recorded that her prenatal history was "negative." The fetal heart tones were recorded 180/min and the patient complained that she "felt bad all over." She had fever to 100.1°F, pulse 100/min, and blood pressure 160/100

mm Hg. She did not void, and on catheterization she had no urine in the bladder. The attending physician was notified of her admission. The physician who had consistently done her prenatal examinations was not on call, so she was seen by one of his associates who had seen her for the first time during the office visit that immediately preceded her admission.

One hour after admission, the patient had fever of 102.4°F. There was some urine in the bag which was tested 4+ for protein. Her blood pressure was recorded at 190/90 mm Hg. The attending physician was notified by phone and stated that he would be there "in 15 to 20 minutes"; he arrived in about 30 minutes. Before he arrived, he had ordered that the MgSO<sub>4</sub> protocol be started. The intravenous fluids that had been running at 200 ml/hr were ordered reduced.

When the attending physician arrived, he immediately ordered the standard orders for labor and delivery preeclampsia/eclampsia protocol. The laboratory work that had been drawn on admission showed an elevated PTT, platelet count of 72,000/cu mm, and a bleeding time of 6.5 minutes. The attending physician's note stated, "No problems since last recorded office visit; no complications of pregnancy (see note)"—apparently referring to the admission note by the nurse.

Two hours after admission the patient was being prepared for cesarean section. She was receiving MgSO<sub>4</sub> IV by perfusion pump. Since admission she had received 1,400 ml of fluid and her output was measured at 28 ml. She continued to remain anuric with reflexes said to be 3+ hyperactive. She received some IV antihypertensives, and at the time the surgery began her blood pressure was 168/96 mm Hg.

Three hours after admission the patient was delivered by cesarean section of a 4-lb 14-oz male infant with Apgar scores of 8 and 9. The postoperative progress note referred to "severe preeclampsia/HELLP syndrome." It was thought that she had either pneumonia or pulmonary edema accounting for her respiratory difficulty which had been noted during anesthesia and continued to the degree that it was necessary to leave the ETT in place and support her on a ventilator postoperatively. Consultation with a pulmonologist supported the diagnosis of the HELLP syndrome; he suggested a CVP line. The CVP was recorded at 3 mm H<sub>2</sub>O. Her liver function progressively deteriorated, as her anemia worsened. She became intensely jaundiced and the serum bilirubin determination suggested intravascular hemolysis. The platelet count continued to drop, and she developed abdominal ascites, which on paracentesis showed to be hemorrhagic.

According to another consultant, the postoperative course had been "complicated by profound hypertension, intervals of pulmonary edema, and hypovolemia." It was thought that she might have developed acute tubular necrosis during the postoperative period.

The patient received a large amount of packed red blood cells, platelets, and clotting factors in the form of fresh frozen plasma. She continued a febrile course and developed more ascites, which proved to be old blood. Despite the efforts of many consultants, and what appeared to be aggressive treat-

Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.



ment, the patient died on the 10th day after surgery. A lawsuit was filed about six months after the patient's death, charging the attending physician and his group with negligence. The allegations included failure to timely diagnose and treat this patient's condition, negligent postoperative care, and fluid overload.

## Loss Prevention Comments

This syndrome of severe preeclampsia/eclampsia characterized by hemolysis, elevated liver enzymes, and low platelet counts (HELLP) has been described in the literature for about 12 to 15 years. In the last three years, many articles have been written to more clearly describe the syndrome and to more precisely define the biochemical abnormalities associated with this disease. It appears to occur in the setting of preeclampsia, usually in the last six weeks of pregnancy. The treatment of this condition is not within the scope of this article, but prompt delivery of the baby seems to be its cardinal principle.

There were a number of factors in this case that made defense virtually impossible. There was no documentation of the "nosebleeds, hemoptysis, and bruising" in the office record, and there was no recorded effort to follow up on this significant development. This may well have been due to a failure on the part of office personnel to inform the physician of this call. Office systems should be in place to record all calls, the caller, the nature of the complaint, and its appropriate disposition. The patient continued to show protein in the urine and a rather massive weight gain without any reference to its possible significance.

There was no documentation in this prenatal record that any member of the group other than the doctor who did her original examination had seen this woman until she was seen by the member who was called upon to manage her admission and all its complications. It is particularly important in a group OB-GYN practice that the record show that the patient has been allowed some

opportunity to interact with other members of the group who might have to deliver her baby. It is particularly important for each member of the group to have some knowledge of the individual record of all the patients for whom he might become responsible.

During the last two weeks of her pregnancy she became more edematous and the protein in the urine increased. On the day of her admission to the hospital, she complained for at least the second time of "feeling bad all over." She was advised to go home and "if you feel bad again, come to the hospital." She reported to the hospital within a few hours.

After her admission to the hospital and the demonstration of near anuria, increasing hypertension, and proteinuria, some aggressive measures were begun. Some expert testimony contended that she suffered from profound hypovolemia on admission despite the tissue edema and supported that contention by the low CVP of 3 mm H<sub>2</sub>O when that line was established. Perhaps earlier efforts at correcting this condition would have prevented the cascade of symptoms that eventually led to her death. Further, experts suggested that immediate measures aimed at correcting the coagulation problems that were evident on the initial laboratory reports might have provided some stabilization for the impending surgery. One must wonder whether or not some hemolysis occurred earlier in the course of this complication of pregnancy.

It is only speculation on the part of experts that earlier diagnosis and more vigorous treatment would have reversed this process. HELLP is a devastating condition, and even the earliest recognition and the most vigorous treatment might well have met with failure. However, in this case the critical clinical facts that were not recorded and seemed to be ignored, the lack of any attention to the proteinuria and edema that had been recorded several times, and the apparent failure to address the complaints of this patient all combined to make defense very hazardous.

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## Presidential Candidates Present Their Views on Health Care Reform

ROBERT BOWERS, M.D., *Chairman*  
TMA Communications and Public Service Committee

One of the most important issues in this year's presidential campaign is health care reform. Whoever wins the election will determine much of the direction for the health care industry during the next four years and beyond.

So it's important that voters, especially those connected with the health care industry, educate themselves on the candidates' stands on the issues that will affect their future. Many patients are concerned about the politicians' stand on health care and may ask you questions about them. We have prepared this article to help you educate your patients on this topical issue.

Posing as an undecided voter, the CARE program wrote to each candidate asking for his stand on health care reform. At this writing, Ross Perot has not responded, but we heard from each of the other candidates. Because of space limitations, I will share the responses of the two frontrunners, Pres. George Bush and Gov. Bill Clinton.

**President Bush** replied that his comprehensive health care reform program is based on four principles:

(1) Cut costs through major market reforms to make health insurance more accessible and more affordable, a \$3,750 transferable health care tax credit that guarantees basic insurance coverage for all low-income families, and a tax deduction that will improve access to affordable insurance for middle-income families.

(2) Remove the fear that changing jobs will end health care coverage, and include individuals and small employers in larger groups to better share risk and to drastically reduce administrative costs.

(3) Preserve Americans' right to choose their own doctor and the type of health care coverage that is best for them, encouraging the use of coordinated care programs and prohibiting legal obstacles to this type of coverage.

(4) Expand access by increasing funding for community health centers, migrant health centers, and the National Health Service Corps.

**Governor Clinton's** health care reform program involves five steps:

(1) Control costs and improve quality through insur-

ance reform, guaranteed benefits and limited cost increases, reduced bureaucracy and containment of the paper explosion, reduced drug price increases, reduced billing fraud, control of the unnecessary spread of technology, a rational medical liability system, updated medical practice guidelines, reorganization of the health care workplace, and reinvention of care delivery through group care health networks.

(2) Guarantee universal coverage, with access to comprehensive long-term care from Medicare, including inexpensive in-home services for the disabled and elderly; access to the public program for the poor and unemployed, with all asked to share some of the costs, except for preventive and some basic primary services and with protection for those who cannot afford it. His plan includes workplace coverage and protection for small business.

(3) Improve and expand access to preventive and primary care, including inner city and rural area clinics and school-based clinics where needed.

(4) Expand long-term care to provide for all Americans of all ages when they need it by expanding Medicare to cover services to be paid for through affordable and equitable cost-sharing mechanisms and to be delivered by contracting out with case managers.

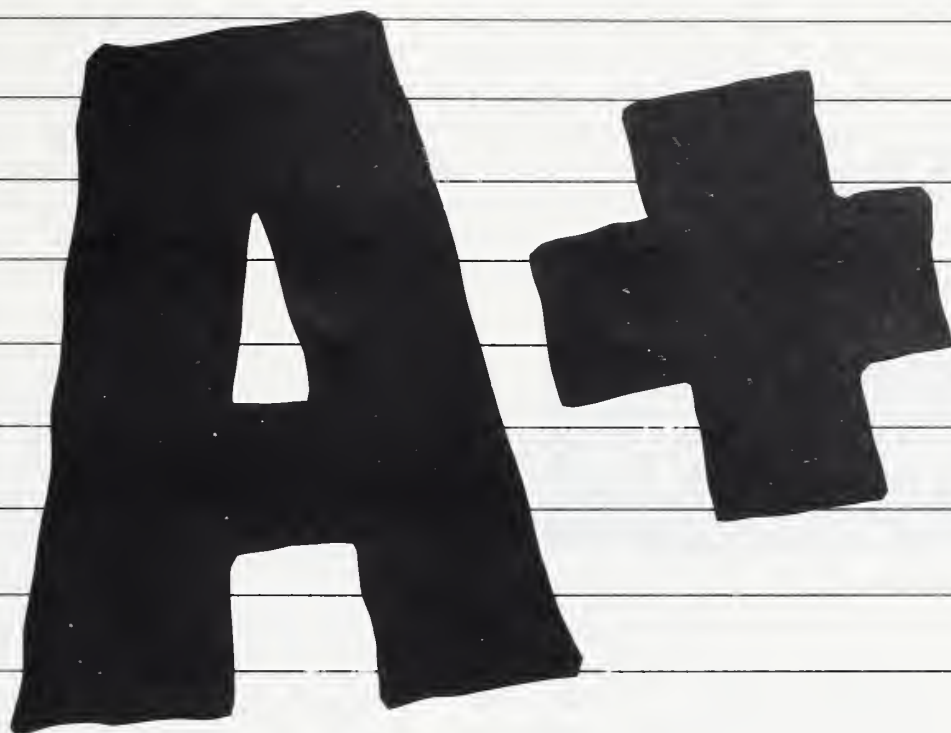
(5) Intensify health education in homes, schools, workplaces and senior centers, supported by the national government with incentives either in funds or in manpower through a National Service Corps of young volunteers who borrow money for college and pay it back through service to the community.

The AMA created the "Health Access America" plan two years ago, a plan endorsed by the TMA. As members, we hope the candidate who wins the election will implement the 16 points of Health Access America and work with organized medicine to ensure a cooperative health care reform package.

If you would like a copy of an expanded version of the candidates' replies or more information on Health Access America, please contact Russ Miller at the TMA office in Nashville at (615) 385-2100.







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## America's Doctors

CHARLES ED ALLEN, M.D.

I hope that the spirit of Charles Dickens will not object to use of his opening sentence in *A Tale of Two Cities*. "It was the best of times and the worst of times," can appropriately be said of the medical profession today. Never have we physicians had so much to offer our patients, methods of diagnosis and treatment not dreamed of a few decades past. Medical science has progressed so far that many of our current challenges are related more to our society than to the dread diseases of earlier years. For these problems, education of the public holds greater promise than startling new discoveries.

How ironic in this time of great accomplishment that we physicians are under siege as never before in modern history. In part, our successes in caring for our patients have led to assumptions and demands that cannot be fulfilled. We are expected to provide the highest level of unlimited care at modest cost to all who want it. We are under duress to guarantee perfect outcomes in all situations, while we know that is not possible. We are beset on every side by bureaucracies, red tape, incessant review, endless regulations, and relentless harassment. The Damoclean sword of medical liability dangles constantly over us.

A recent American Medical Association survey indicated 69% agreement with the statement, "People are beginning to lose faith in doctors."

What are the reasons for our frustration and for our decreasing public esteem? Some of these factors are well known—increasing costs of medical care and sensationally publicized malpractice claims. Having an estimated 36 million Americans without medical insurance implies that they have no access to medical care, but we know that is not true. Subspecialization provides skills to manage very complex illnesses. When patients are required to see multiple doctors, however, they may feel exploited and alienated, and doctor-patient relationships become strained. It is claimed that patients have high regard for their personal physicians but are less approving of the medical profession.

Is there some way by which we in medicine can rebuild public confidence and respect for our profession?

Would we be willing to lead the way to reduce national health care costs and to relieve tremendous suffering from the plagues that our society imposes on itself? Imagine, if you will, this nation having substantially no problems from alcohol, tobacco, and illicit drug abuse. If a bottom-line is needed, think of the financial rewards to our country if all the ill effects of tobacco were suddenly to disappear—elimination of most chronic lung disease and dramatic reduction in lung cancer, heart attacks, and vascular disease. Think of how many more infants would enter life with normal birth weight in the absence of tobacco and alcohol use by their mothers. Picture in your minds the blessing of all newborns escaping the devastating effects of cocaine. Without drunk drivers, at least half of our highway deaths would not occur, and serious injuries, disability, and property damage would decrease even more dramatically. Why should homicides continue as a leading cause of death among teenagers and young adults? Why should the AIDS virus continue to be disseminated with wanton disregard of the consequences?

About now, you are beginning to think that Ed Allen has his head in the clouds. You are right. My head is in the clouds, and I hope yours will be there also. There is a way that you and I, and all members of the Tennessee Medical Association, can help solve these problems.

Much is already being done by our auxiliaries, by our local and state medical associations, by the American Medical Association, and by many other organizations. Our government has put forth tremendous efforts and countless billions of dollars to address these societal problems. All of these programs notwithstanding, only limited success can be demonstrated.

Can we expect organized medicine to accomplish all of these goals? Obviously the answer is no. But, there is a "yes" answer available to us. As individual physicians and spouses, and collectively through our auxiliaries and medical associations at all levels, we can lead the way. We must encourage and urge such non-governmental agencies such as religious groups and social service organizations to become involved in restoring harmonious social standards in inner cities, in suburbia, and in rural areas. Here is a golden opportunity to bring all who are willing to participate into a cohesive, focused force. The medical profession has the knowledge, the ability, and the organizational structure to be the

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Reprint requests to 408 State of Franklin Road, Johnson City, TN 37601 (Dr. Allen).



catalyst in this nationwide endeavor.

Law enforcement is less than effective in stemming the tide of these national maladies. Education is the only way to achieve a long-term solution. We must insist that the dangers of our society's self-inflicted problems be emphasized again and again at all levels, from preschool through college and to the public at large. We are witnessing the result of removing the teaching of moral principles from our schools. Such instruction must be reinstated at all levels, including the sacrosanct halls of higher education.

If you agree with me, and I hope that you do, we might say, "This is a good idea. Why doesn't someone do something about it?" I challenge us, the Tennessee Medical Association, to accept the responsibility of initiating the movement to cure these potentially fatal diseases of our nation. Our state can lead the way to saving lives, to avoiding needless suffering, and to substantially reducing health care costs. The Tennessee Medical Association can serve as the example for all other state medical associations. We can insist that the American Medical Association bring its full resources to bear on these critical problems.

Can we do it? Of course we can do it. Our school boards must be influenced to develop and initiate intensive curricula. Our state government can require that

such instruction be given in all state-supported educational institutions. Community organizations can do much to bring vital information to all citizens. Our mass media must be stimulated to become more involved. I will request the Tennessee Medical Association Board of Trustees to accept this proposal and to begin planning for its execution. I am convinced that any good goal can be reached if we are willing to take up the task and are fully dedicated to its successful conclusion. Let us prove anew that we are, in fact, America's doctors.



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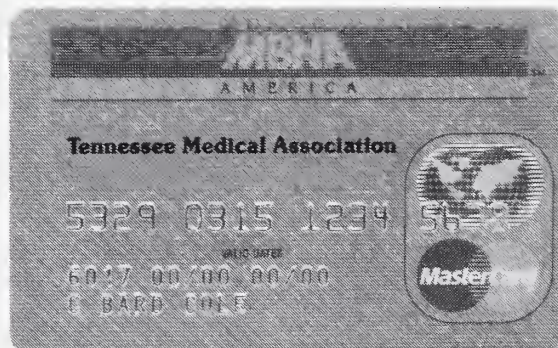
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# De Mortuis

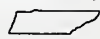
CHARLES R. HANDORF, M.D.

The similarities were striking. Both men were middle aged; both had apparently cared for their health in a somewhat cavalier way. And, of course, both were dead. One man had come to my autopsy table the victim of chronic alcoholism. Although he had once seen better days, a quick glance through his hospital records revealed the trace of his decline, one which had dragged his family and remaining friends into deep despair. His records were punctuated with social services consultations, gentle reminders that he was slowly losing the ability to care for himself and those around him. The other man came by a different route but to the same autopsy suite on the same day. He had died suddenly in his sleep while in apparent good health. He was somewhat obese, and worked as a well-respected member of a high-visibility, high-pressure profession.

Another unusual similarity in these two men was that during preparation for their postmortems, it was necessary for me to speak to each of their widows. Because autopsies are so seldom obtained now, we often have errors or inconsistencies in the paperwork, which must be corrected. Such was the situation with each of these; in each case, discussion with only the next-of-kin would suffice. I was impressed by the quiet dignity of each bereaved young woman. As we talked, however, it struck me that my direct intervention with each of them had served to do much more than clear up legal niceties so that the autopsies could proceed. Each woman had the same questions of me that I had assumed would have been answered by the clinician obtaining consent: Would there be a charge for the procedure? Who would have the report and when? How would her husband's remains be transported for burial? Why hadn't her husband's organs been acceptable for donation? As I spoke with each woman, it occurred to me that what I was about to do served a vital purpose in their grieving processes. I was also amazed at how badly they were prepared for what to expect of the autopsy. But then, why should I have been surprised? I knew to expect that the paperwork would be fouled up. Why shouldn't I expect the explanation of the whys and wherefores of the procedure to be bungled? Who is responsible for this sad state of affairs? I am! By my abrogation of responsibility, people who have never seen or participated in an autopsy must explain the procedure and seek con-

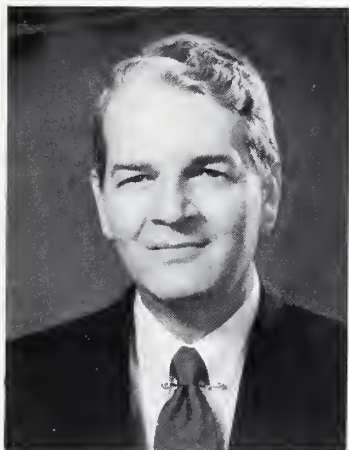
sent. How can a nurse or a fellow physician, unaware of the subtleties of the postmortem examination, give a confident or convincing or correct explanation?

It is often jibed—primarily at cocktail parties—that I chose my specialty because my patients never complain. Yet, I did not enter pathology because I wished to retreat from patient (read human) contact. In fact, I enjoy dealing with people; one cannot necessarily direct or interact with over 400 employees, as I do, and be too much of a wallflower. No, I chose my profession because of the challenge and variety that it offers, and yet the autopsy appears to be one instance in which I and many of my fellows have failed to be proactive. The merits of the autopsy have recently been thoroughly discussed, as have the reasons for its decline. I suspect, however, that the pathologist's lack of interest in performing timely and useful autopsies has not been completely explored. Before we can resurrect this useful and needed procedure, we must clean our own house in terms of the product we deliver.

I have recently pondered an inscription that adorned the wall of the autopsy room where I trained: "This is the place where the dead teach the living how to live." In earlier years, I had an overnarrow interpretation of this dictum. I, like many, felt that the autopsy was useful for determining a cause of death and, in some instances, for generating case reports and retrospective studies to help solidify the security of young academic careers. Now I know of many more uses for the results of this procedure: answering questions such as "Why?" and "Did we do all that we could?" for grieving family members, challenging all students of medicine to greater levels of diagnostic acumen, prospectively studying the effects (both good and ill) of our therapeutic interventions. None of these questions will be answered, however, from behind the pathologist's "paraffin curtain." We must be effective in obtaining autopsies, completing them, and delivering and explaining results to family members and clinicians. Perhaps only we can obtain appropriate consent; perhaps we must routinely explain autopsy results to family members, thereby developing a sense of personal commitment and rapport. And what about the thorny issue of lack of reimbursement for this service? There, I suppose, I don't have many answers. I am certain, however, that if we do not think the autopsy is important enough to give a high priority, then no payer (including the government) will think it important enough to pay for. 

Reprint requests to Department of Pathology, Methodist Hospital, 1265 Union Ave., Memphis, TN 38104 (Dr. Handorf).





CHARLES ED ALLEN

## *Medical Care Costs*

Rarely do we hear legitimate complaints about the quality of American medical care. Frequently we are told that the predominant problems of our health care system are excessive cost and limited access. These two concerns are related since an estimated 36 million of our citizens are unable to afford medical insurance.

Factors that result in rising medical expenses include inflation, our aging population, expensive technology, injuries and illnesses resulting from unhealthy lifestyles, and the overt and hidden costs of medical liability. These are complex problems for which no simple solution exists.

There is growing national interest in addressing the unfettered onslaught of liability suits. I am convinced that no restraint of medical care costs is possible until meaningful reform of our tort system is accomplished. Malpractice insurance premiums represent only a small fraction of the total.

The practice of defensive medicine is occasionally mentioned, seldom discussed, and rarely defined. The line that separates thoroughness and defensiveness is blurred at best. I suspect that patient management that includes defensive measures, in time becomes the standard of care, recognized then as correct medical practice. A good argument can be made that we have replaced sound medical judgment with nonessential procedures and treatments. We can imagine the plaintiff's attorney saying, "Doctor, you could have ordered a CT scan. Why didn't you?" As physicians, we should be able to exercise sound judgment without fearing recrimination. Medical judgment is obviously not always perfect, but neither is expensive technology, which has its own faults and hazards.

When medical liability reform occurs, our efforts to reduce costs will have just begun. Practice parameters will be valuable in helping us to make sound decisions. A process of reeducation of physicians will be necessary. Teaching in medical schools and residency programs will require revision. As we are able to restrain costs, the quality of medical care should not decline and will more likely improve.

The basic premise of my proposal is that medical liability reform will occur. Let us hope that our national and state governments will have the determination to correct this blatant defect in our judicial system.

*Charles E. Allen, M.D.*

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**AUGUST, 1992**

# **editorials**

## **Conflicts of Interest**

Conflict of interest is a term of relatively recent vintage applied to a situation faced by man ever since Adam had to choose between obeying God and living amicably, or even, as he hoped, better than that, with his wife. As man has done almost universally ever since, he settled for short-term satisfaction,

while still holding out hope for long-term benefits. It didn't work for Adam any better than it works for us now—or maybe that's stated backwards: it doesn't work any better for us now than it worked for Adam. But we keep trying. Before we spoke of conflict of interest, it was called wanting it both ways, or talking out of both sides of the mouth.

Somehow, conflict of interest has taken on an exclusively fiscal connotation, when that is only one part of it, and sometimes only a minor part, at that. One outstanding example of conflict of interest, which hasn't been called that, is the current problem Mr. Bush has with the participation of the United States (read "President Bush") in the upcoming Earth Summit in Rio de Janeiro. Mr. Bush has stoutly maintained that he wants to be remembered as The Environmental President. Mr. Bush has also, though, just as stoutly indicated that he wishes to be A Two-Term President. There is clearly a conflict of interest there. Mr. Bush has determined, or has had determined for him, doubtless correctly, that to adopt the high emission control standards the Earth Summit would impose would have a damping effect on the United States economy at a time when the economy already has all the damping effects it can handily accommodate, and then some. Mr. Bush sees that, again probably correctly, as having a damping effect on his reelection likelihood at a time when his reelection likelihood already has all the damping effects it can handily accommodate, and then some. Whether Mr. Bush calls that a conflict of interest (COI) or not I really couldn't say, but probably not. I do, though. What I really prefer to call it is talking out of both sides of his mouth (or, to coin a phrase, "Read my lips.").

I need to enter a disclaimer about here. Although I have a decided distaste for many of Mr. Bush's programs and maneuverings, I am still of the firm persuasion that so far as this year's presidential election is concerned, there is not even a second place candidate. Which is to say that I am not necessarily pro-Bush; I am simply anti everybody else—very. That has, alas, been the situation in most of the elections I have encountered in my 50 years of voting. But I have seldom not voted, just the same, since those who fail to vote have no right to complain. That does not prevent their complaining, of course.

To return to Earth Summit and Mr. Bush's COI. Mr. Bush clearly wanted to go to Rio, but not to sign the proposed accord. Some of the Europeans were heard to comment that to have such a gathering would be pointless without the participation of the United States, since the United States is by far the world's leading polluter of the atmosphere. So nego-



tiations have been entered into by the State Department to persuade the other delegates, particularly the Europeans, to lower their sights somewhat. Mr. Secretary James Baker recused himself because of a *real* conflict of interest—his financial holdings—and sent an undersecretary, Robert Zoellick, who, wonder of wonders, persuaded the other signatories-elect to amend their rigid posture, and accept a much diluted version of the manifesto couched in such vague terms that it says virtually nothing and requires no commitment by anybody to anything. There was apparent relief all round, since everybody recognized that the more rigid terms would prove expensive in both money and political prowess, and there are few kings left in the world. There is one queen of magnificent stature, but she is not in on the negotiations. Those who are in on them always seem to feel somewhat less than secure.

What it boils down to is that Earth has a lot of moral support, but commands few votes. There are some fairly persuasive pro-earth lobbies that do win some battles now and then, but the war is going badly, and shows every sign of becoming a lost cause. Everybody, or nearly everybody, loves wilderness. It makes for pretty pictures, preferably ones that someone else took if it is real wilderness. But nearly all of us much prefer the things oil brings us. Lumbermen would rather clear-cut, but some of the “more responsible” lumber companies speak of “selective cutting.” This means they cut the big ones and reforest with little ones. Some day there will be no old forests left to take pictures of, and the young ones are not very imposing or satisfying to man, beast, or bird. They just hold the soil and make oxygen from carbon dioxide.

Some people even like to go to the wilderness themselves, though if enough people go, it turns out not to be wilderness anymore, because the visitors require campsites and electricity and so on. Most prefer the national parks to natural wilderness, but to enjoy them you have to get to them, and after you get to them you have to get around. All this means roads—wide roads, and those don’t do mush (a Freudian slip of my word processor; it should have said much, but maybe it meant mush, because it doesn’t do that or anything else helpful) for the ecology or the landscape. In fact, *au contraire*.

To hear HCFA and OSHA and the various federal agencies talk, not to mention most of the public, one would think the only people in the world who *really* have conflicts of interest are doctors. I just thought I’d point out that folks in other categories have them, too. But of course, I’m preaching to the choir here, since nobody else pays us any mind except to criti-

cize, nag, and regulate. It just helped me, and likely nobody else, to say so. But then I can say it here because I’m the proprietor of this platform.

J.B.T.

## The Thrill of Victory, and the Agony of Defeat

Sports fans will readily recognize the above title as the slogan of a weekly sports special carried on one of the television networks. In a way, that says it all, not only for the participants, but for died-in-the-wool sports fans as well. Both fade eventually, but they are only too real at the time, and memorable, too. At the same time, the matter is generally vastly overplayed by the entrepreneurs, not to mention schools and coaches, to the tune of m-o-n-e-y, so as to whip up a proper frenzy amongst the fans. The participants don’t need such stimulation as a rule; if they do, the cause is probably already lost, anyway.

A current ridiculous, embarrassing, and uncalled for flap over school loyalties in Nashville called up a poignant flood of memories of both victory and defeat. In the hope that the news has not spread beyond Nashville, a hope that is patently vain, since ill winds travel fast, I’ll summarize the situation briefly. Before I do, though, I feel I must enter a sort of disclaimer. This is dull season in the world of sports, and sports writers have a tendency to seize on the trivial and enlarge it to often gargantuan proportions. I think it not unlikely that the anti-heroes here have been victimized as much by timing and boredom as by their own actions. Nevertheless, their actions seem at least unwise if not actually inappropriate, and serve well to illustrate the point I wish to make.

It seems that one of the radio commentators on Vanderbilt football games has been sacked for having divided loyalties, having had the temerity to be seen in public in company with some people wearing the hated orange. Never mind that of all those involved in the aftermath of his imputed dereliction, he is the only one with a Vanderbilt diploma on the wall. Not only that, he starred in Dudley Stadium wearing the black and gold, and is the only Commodore ever to hold the SEC record for yards gained by rushing. What’s more, he was Vanderbilt football Coach Watson Brown’s very successful defensive coordinator. At one time he did do a stint as assistant coach at the University of Tennessee, and so, to his apparent discredit, he has many friends there, in whose company he was unwittingly videotaped. The



tapes were shown on the tube, and, according to the Vanderbilt athletic director, a newcomer to Vanderbilt from the Bronx, thereby evoked a storm of protest among loyal Vanderbilt fans.

I would not wish to accuse the Vanderbilt athletic director and football coach, also a newcomer, also from the Bronx, of playing fast and loose with the truth, but with all due respect, the fact of the matter is that 99% of Vanderbilt fans are Vanderbilt football fans on Saturday afternoons for about three months out of the year. The rest of the time they work and play with their friends, probably at least as many of whom are UT fans as Vanderbilt fans, since I should think there are, even in Nashville, about 10 UT graduates for every Vanderbilt graduate. Not only that, some Vanderbilt fans have children by UT fans, and even more of them have children who are UT graduates. Many of our medical colleagues hold bachelor's degrees from Vanderbilt and medical degrees from UT, and there are also a few whose degrees are the other way round. In short, there are a whole lot more switch-hitters in Nashville than Coach DiNardo apparently realizes, and if he really meant what he said about not welcoming any fans with divided loyalties, Vanderbilt's stadium is going to be even more underpopulated than it has ever been, even at its nadir.

I don't wish to belittle the generally superb job either Athletic Director Hoolihan or Coach DiNardo are doing for the Vanderbilt athletic program. Coach DiNardo is an articulate man, who comports himself well, and who is peripatetic on Vanderbilt's behalf. Furthermore he seems to be a man who can put Vanderbilt in the win column if anybody can. It is simply that sports have more than a little tendency to cause otherwise rational people to act irrationally, and to make extravagant statements that will come back to haunt them. Those two have certainly done that, in spades.

I could stop this editorial here, since I have stated my case, and made my point. Actually, though, that was only the introduction to some personal reminiscences that further illustrate the pervasiveness of sports hysteria, i.e., the thrill of victory and the agony of defeat. I tell you this so that in case you want to sign off now, the room is dark and you will disturb no one if you choose to slip quietly out. If you wish to continue, be my guest. You may come and go as you please, which is one of the advantages the printed word has over lectures.

Pep rallies are great fun; they are also phenomenal builders of loyalty, not to mention mass hysteria. Chattanooga is a town divided by loyalty to Baylor and McCallie Schools, both of which were military schools in my day; neither is now, and Baylor is

coed. The rivalry was, and I guess still is, every bit as intense as that in Nashville between Vanderbilt and UT. That was particularly true on Lookout Mountain, where I grew up, where nearly every boy went to one or the other school, and nearly every girl dated boys who went to one or the other. (Some had the temerity to date one or more from both schools: divided loyalties.) My decision to go to Baylor was not an easy one. My father had a slight preference for McCallie, mostly, I think, because it was a Presbyterian school, but left the decision to me. I had friends in both schools, and after school, when late attendance was not required by such things as athletics or "staying in," it was the custom to meet in Lane's Drugstore, where the GPS (Girls' Preparatory School) girls also were apt to congregate. The place often became more than a little crowded, and a seat at a table was at a premium. Occasional fights erupted, sometimes resulting in the shop being placed off-limits, but the fights were as likely to be between boys from the same as from different schools. Mostly they were over some GPS girl; they almost never involved school rivalry. Except maybe on Friday afternoons after football games, when feelings ran high, even when the schools were not playing each other; it was in anticipation, I guess.

The culmination of the football program came at Thanksgiving, when the gladiators of the two schools faced off on Chamberlain Field, home of the University of Chattanooga Moccasins. The game was always preceded by a giant pep rally on the evening before, which raised expectations to unrealistic heights, with an almost religious fanaticism. Somebody had to lose, of course, and in my freshman year it was Baylor. Talk about the agony of defeat. I was crushed. Though Baylor came out ahead in the next three confrontations, and as I recall was seldom defeated in those three years, that is the only game in all of my four years there that I have any specific recollection of. I was unable to face my McCallie friends ever again—or at least for a week or so, or maybe more like a day or so, after which things returned to normal, and we were all friends again. In fact, my best man at my wedding was a McCallie graduate. Interschool rivalry even today occasionally rears its head in conversations between me and a McCallie alumnus, but the head is not ugly. Only placid.

Generally speaking, human beings tend as the years go by to remember things as being better than they were, the bad experiences and setbacks tending to fade into a blur, if not disappear altogether. But not in sports. Owing, I think, to the overweening build-up and unjustified importance accorded sports contests, the agonies remain, sometimes vividly, and



sometimes till death do us part; one fervently hopes no longer than that. When one is a Vanderbilt fan, I think the pain becomes dulled as one becomes accustomed to losing, in the same way one learns to accept as irremediable some physical disability. Though I had become accustomed to winning at Baylor, all that changed after I entered Vanderbilt in 1938.

With proper prodding I could probably dredge up other heights and depths resulting from more than 50 years of being a Vanderbilt football fan, but with a gradual dwindling from being a fairly rabid one through numb to moderately cool, I carry on the surface one scar and one bright spot. First the bad news.

In 1941 Vanderbilt's football team had an outstanding year, so much so that it was being considered for the Rose Bowl. It was generally conceded near the end of the season that it would be picked if it could overcome that final hurdle: the Orange and White. As to that, there seemed to be no problem. I was a first year medical student faced with an anatomy quiz on the Saturday of the game, and Dr. Sam Clark had promised a zero, without the possibility of a make-up, to anyone brazen enough to cut class and go to Knoxville, where the game was to be played. Dr. Clark, of course, as usual had his priorities in perspective. So blinding to reality is sports, however, especially football, that five of us had the temerity to brave his displeasure and make the trip anyway. We had laid careful plans to paint Knoxville red and stay at the SAE house after the victory. To make a long story short, Vanderbilt suffered a humiliating defeat at the hands of the Orangemen. It took what seemed an eternity to exit Shields-Watkins Stadium. Once we got out, we made the five-hour trip over the winding roads from Knoxville to Nashville in the rain in utter silence. So dejected were we that Sweet Silent Sympathetic Sam Clark, as one of my classmates dubbed him, allowed us to make up the quiz. We hardly ever mentioned the trip again, ever, and I couldn't tell you today who else went, except that we were in John Baker's car.

I never went back to Shields-Watkins Stadium, or to its successor, Neyland Stadium. It was the General who beat us. Vanderbilt has won there since, but not often. A friend and colleague of ours, a professor in Vanderbilt Medical School, a holder of two Vanderbilt degrees, and one of Vanderbilt's more rabid fans, suffered a similar experience some years later, after which, saying, "They'll never hurt me again," he moved his football allegiance to Tennessee State University, then Tennessee A & I. There, he said, he could follow a winning team.

One of the few bits of good news from the rivalry, and the only one that comes to mind by itself without

prompting, happened a few years later when Red Sanders was Vanderbilt's coach. I believe it was in 1948, after I had returned from Army service and taken up my training on the surgical service at Erlanger Hospital in Chattanooga. The house staff at Erlanger was a hotbed of UT fans, most of them recent enough graduates to still be fairly rabid. There was only one other Vanderbilt graduate on the house staff, and we had taken a lot of ribbing about what UT was going to do to the Commodores. Both of us happened to be on call that Saturday, and were in the house staff quarters when Vanderbilt upset UT rather handily. The mildest descriptive term I can apply to us is gleeful; ecstatic might be better, but beyond that I won't press my luck. In any case, I felt in some measure compensated for my 1941 fiasco. What had stayed an open wound had now become simply another scar, you might say.

Ardor cools with the years in most of us, particularly if we are Vanderbilt fans. That is abetted by erratic performance of our teams and long stretches in the doldrums, and particularly as your school continues doing things that disappoint and often enrage you. Poor performance in sports becomes more and more a relatively minor irritant in the relationship.

For reasons that appear trivial to me, as well as to the other Vanderbilt supporters of all ages with whom I have discussed the situation or whom I have heard discuss it, Coach Matthews' days on Vanderbilt radio are finished. It would appear that he was, as is anyone else connected with the athletic program, expected to shun with a wide berth anything with even a tinge of orange. The same abstention is apparently expected of the fans. As one of the columnists commenting *ad nauseum* on the situation observed, they (the Vanderbilt Athletic Department) probably would like to spray-paint the setting sun so it doesn't appear so orange.

It set me to wondering how many people realize why the two UTs—the Universities of Tennessee and Texas—are orange and white. They are because both states were settled largely by Scots-Irish, and in fact the American Revolution was called by some in England the Scots-Irish Rebellion. The Scots-Irish hailed mainly from Northern Ireland, adherents of William of Orange, hence Orangemen. I am black and gold all the way, with a wife, two sons, and a daughter holding Vanderbilt degrees, and two of us two degrees. Despite that, as a Scots-Irish Presbyterian, I don't find orange as offensive as some other people might—except at Vanderbilt-UT football games. Any other time, though I wouldn't myself, if anybody likes to wear orange, I say let them.

If those in charge of the athletic program at

Vanderbilt expect to maintain their credibility, they need to reread their signs and rethink their position. A lot of mending of fences would seem to me to be in order, as they, with able assistance from the hacks, have made themselves a laughing stock, not least among those they appear to be trying to appease. One might say their priorities have become warped. One might also say they have a conflict of interest: getting in the money the fans pay for tickets, while at the same time being picky about whom they allow to shell it out. That is a pretty good balancing act.

This should be a lesson to all those who take sports too seriously, since sports are, after all, only games. Or at least that is the intention. On the other hand, those folks might just say what Mark Twain said about the man who fell and broke his back as he was climbing up the chimney. Folks said that should be a lesson to him. His response was that he only had one back. So what was the lesson?

J.B.T.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### COFFEE COUNTY MEDICAL SOCIETY

*Richard Clinton Cole, M.D., Tullahoma*

### FRANKLIN COUNTY MEDICAL SOCIETY

*Jeffrey L. Frye, M.D., Winchester*

### HENRY COUNTY MEDICAL SOCIETY

*Henry W. Gronski, M.D., Paris*

### KNOXVILLE ACADEMY OF MEDICINE

*Leonard W. Brown, M.D., Knoxville*

### LAKEWAY MEDICAL SOCIETY

*John V. Yacono, M.D., Morristown*

### McMINN COUNTY MEDICAL SOCIETY

*Charles Thomas Meyer, M.D., Etowah*

### MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

*Robert Ferguson, M.D., Memphis*

*Mark L. Hammond, M.D., Germantown*

### MONTGOMERY COUNTY MEDICAL SOCIETY

*Thomas W. Butler, M.D., Clarksville*

### RUTHERFORD COUNTY/STONES RIVER ACADEMY OF MEDICINE

*Brian M. Thompson, M.D., Murfreesboro*

### SULLIVAN COUNTY MEDICAL SOCIETY

*Kelly James Cassedy, M.D., Kingsport*

*Darryl Fontaine, M.D., Kingsport*

*Ken W. Smith, M.D., Kingsport*

### WASHINGTON-UNICOI-JOHNSON COUNTY MEDICAL ASSOCIATION

*John Martin Dengler, M.D., Johnson City*

*Susan Davidson Rollins, M.D., Johnson City*

*David A. Sibley, M.D., Johnson City*

*David C. Tabor, M.D., Johnson City*

*Nancy Lynn Taylor, M.D., Johnson City*



*Morris D. Cohen, age 79. Died June 16, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.*

*Basye Kimbrough Hibbett III, age 66. Died June 17, 1992. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.*

*Linda A. Jacobson, age 34. Died February 17, 1992. Graduate of University of Illinois College of Medicine. Member of Sullivan County Medical Society.*

*William B. Malone II, age 82. Died April 14, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.*

*Jerry Edwin Puckett, age 56. Died May 26, 1992. Graduate of University of Tennessee College of Medicine. Member of DeKalb County Medical Society.*

*Jerry F. Randolph, age 55. Died April 29, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.*

## personal news

*Paul E. Spray, M.D., Oak Ridge, has received a humanitarian award from the International College of Surgeons, U.S. Section, in recognition of his "unselfishly sharing his skills through teaching and clinical practice, nationally and internationally."*

*Kevin R. Ferguson, M.D., Chattanooga, has been certified as a Diplomate of the American Board of Psychiatry and Neurology in the specialty of Psychiatry.*



John Henning Meriwether, M.D., Jackson, has been certified as a Diplomate of the American Board of Urology.

The following TMA members have been certified as Diplomates of the American Board of Anesthesiology: Joseph M. Haskins, M.D., Chattanooga; Edward E. Hockaday Jr., M.D., Jackson.

## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during May 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

Joe P. Anderson, M.D., Memphis  
Philip B. Anderson, M.D., Chattanooga  
Ronald C. Bingham, M.D., Jackson  
William A. Bryant, M.D., Woodbury  
Lawrence L. Bushkell, M.D., Knoxville  
Norman M. Cassell, M.D., Nashville  
John E. Chapman, M.D., Nashville  
Thomas W. Conway, M.D., Newport  
Loren A. Crown, M.D., Memphis  
David G. Doane, M.D., Johnson City  
Robert F. Elder, M.D., Knoxville  
Melvin L. Goldin, M.D., Memphis  
Clarence E. Goulding III, M.D., Johnson City  
Hugh E. Green, M.D., Carthage  
H. Kurt Harnisch, M.D., Lewisburg  
William T. Hayes, M.D., Memphis  
John R. Hilsenbeck Jr., M.D., Memphis  
Paul W. Hoffmann, M.D., Maryville  
Dilip N. Joshi, M.D., Jamestown  
John H. Kinser, M.D., Morristown  
Stanley M. Lee, M.D., Nashville  
Harold N. Lovvorn Jr., M.D., Nashville  
Vergil L. Metts III, M.D., Brentwood  
Jung T. Park, M.D., Whitwell  
R. Wayne Rhear, M.D., Jackson  
Mary C. Schanzer, M.D., Memphis  
Thomas F. Shultz, M.D., Nashville  
Ralph W. Simonton Jr., M.D., Portland  
William N. Smith, M.D., New Tazewell  
James N. Sullivan, M.D., Nashville  
Lawrence C. Swan, M.D., Cleveland  
Miriam B. Tedder, M.D., Harriman  
Ronald C. Tillman, M.D., Alamo  
Howard T. Walpole Jr., M.D., Nashville  
John J. Warner, M.D., Nashville  
James H. Whitehurst, M.D., Knoxville  
Carl T. Younger, M.D., Memphis

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

- |                 |   |
|-----------------|---|
| Sept. 8-13      | American Academy of Neurological and Orthopaedic Surgeons—Bally's Hotel, Las Vegas                        |
| Sept. 18-20     | Geriatrics for the Practicing Physician—Hotel Inter-Continental, Chicago                                  |
| Sept. 19-23     | American Urological Association, Inc., Mid-Atlantic Section—Williamsburg Lodge and Inn, Williamsburg, Va. |
| Sept. 20-24     | American Society of Maxillofacial Surgeons—Grand Hyatt, Washington, D.C.                                  |
| Sept. 23-26     | American Thyroid Association—Mayo Civic Center and the Kahler Plaza Hotels, Rochester, Minn.              |
| Sept. 24-27     | American College of Nuclear Physicians—Ritz Carlton, Alexandria, Va.                                      |
| Sept. 30-Oct. 3 | American Academy of Clinical Psychiatrists—Hyatt on Union Square, San Francisco                           |
| Oct. 1-4        | American Association for Cancer Education—Buffalo, N.Y.   |
| Oct. 8-10       | Clinical Orthopaedic Society Inc.—Westin, Denver  |
| Oct. 9-12       | American College of Nutrition—San Diego Marriott Mission Valley   |
| Oct. 10-16      | American Society of Clinical Pathologists—Las Vegas Hilton  |
| Oct. 10-16      | College of American Pathologists—Las Vegas Hilton   |
| Oct. 11-15      | American College of Rheumatology—Marriott, Atlanta  |
| Oct. 11-16      | American College of Angiology—Sheraton, New Orleans   |
| Oct. 15-17      | Association of American Physicians and Surgeons—Airport Radisson, Seattle                                 |
| Oct. 15-18      | American Academy of Family Physicians—Marriott, San Diego   |
| Oct. 17-21      | American Society of Anesthesiologists—New Orleans   |
| Oct. 21-25      | American Academy of Child and Adolescent Psychiatry—Hilton, Washington, D.C.                              |
| Oct. 25-28      | Medical Group Management Association—Marriott Orlando World Center  |
| Oct. 26-28      | American College of Gastroenterology—Fontainebleau Hilton, Miami Beach                                    |
| Oct. 26-29      | Interstate Postgraduate Medical Association—Riviera, Las Vegas  |
| Oct. 26-30      | American College of Occupational and Environmental Medicine—New York Hilton                               |
| Oct. 30-31      | American Society of Law & Medicine—Royal Sonesta, Boston  |
| Oct. 31-Nov. 5  | American Fertility Society—Hilton, New Orleans  |

#### STATE

- |             |  |
|-------------|--|
| Sept. 17-19 | Tennessee Chapter, American Academy of Pediatrics and Tennessee Pediatric Society—Sheraton Plaza Hotel, Johnson City             |
| Oct. 22-24  | Tennessee Society of Internal Medicine—Gatlinburg Convention Center  |
| Oct. 27-30  | Tennessee Academy of Family Physicians, 44th Annual Scientific Assembly—Gatlinburg Convention Center and Holiday Inn, Gatlinburg |

...this working formula for  
a payment amount for a procedure  
in a fee-schedule area:

$$\text{Payment} = \{RVU_w X GPC_{Iw}\} + \{RVU_{pe} X GPC_{Ipe}\} + \{RVU_m X GPC_{Im}\} X CF$$

where ... work relative value

## Help is here!

If you're not clear on how the new Medicare Physician Payment System will work, you're not alone. With the assistance of the American Medical Association (AMA), however, you can cut through the clauses and sub-clauses of Medicare's new payment regulations and gain a greater understanding of the new system.

*Medicare Physician Payment Reform: The Physicians' Guide*, published as a two-volume set, is the most authoritative product available on Medicare's new payment system.

*Volume I* explains the components of the new system including coding changes and payment for global surgical services, includes worksheets for determining the impact of the new system on individual practices and provides additional resources.

*Volume II* presents the new system's relative values by CPT code, as well as geographic practice cost indices for each Medicare carrier locality.

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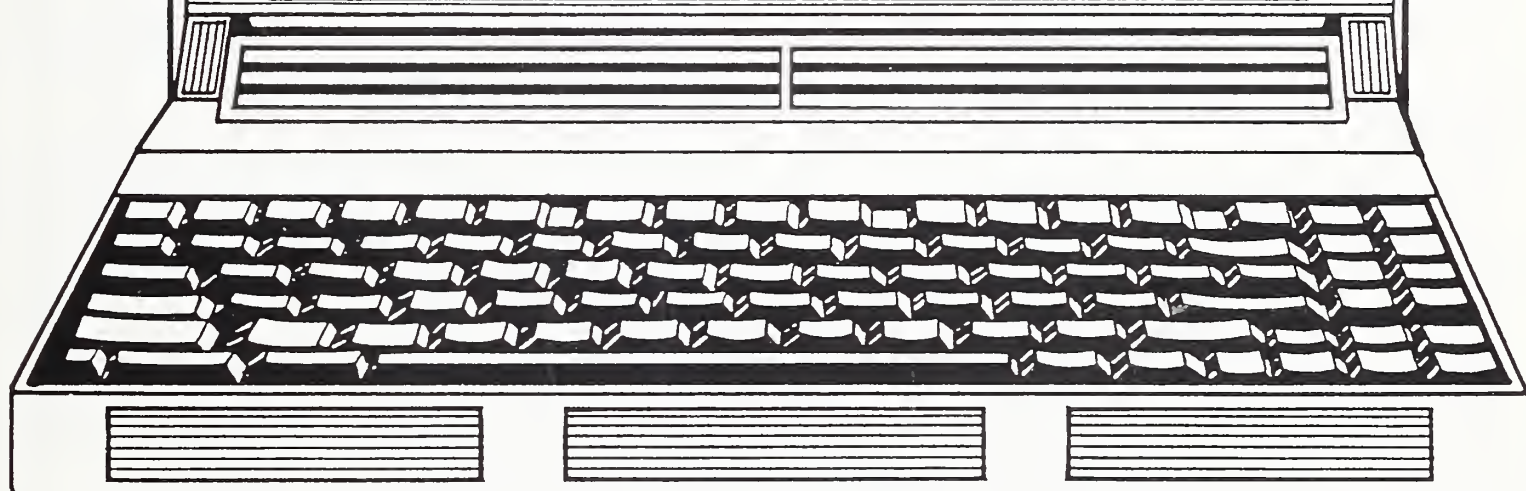
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# American Medical Association

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## For Your Benefit

### American Medical Association Works to Redress Medicare Inequities

The American Medical Association is working to enact legislation in Congress to redress several inequities in the Medicare program.

**New Physicians:** Senate bill 2362 and House bill 4507 ask for repeal of provisions in the current law that mandate Medicare payment reductions for physicians in their first four years of providing care for Medicare beneficiaries.

**EKGs:** House bill 3373 and Senate bill 1810 would restore Medicare reimbursement for interpreting EKGs. HCFA says that it did not add sufficient money to visit codes to cover expected costs of paying for interpretation. The AMA, HCFA and medical specialty societies are

discussing ways to recoup the money.

**Geographic Price Cost Indices:** HR 4393 and S 2680 would require HHS to use more accurate current data and consult with the state medical societies to revise the GPCIs. S 2683 requires HCFA to update GPCIs more frequently and make special adjustments for physicians in isolated areas.

**Anti-Hassle:** HR 2695 and S 1332 aim at reducing administrative hassles regarding secondary payors, payment errors, carrier user fees, and improving physician peer review.

Contact your senators and representatives to ask them to cosponsor these bills: 1-202-224-3121

### AMA Censures Disruptive CLIA Office Visits

The AMA, in comments on the final CLIA regulations, characterized unannounced HCFA inspections as disruptive for patients, especially those waiting for test results. The AMA

recommended that inspectors:

- treat physician's offices differently from independent reference labs, and
- notify physicians ahead of time.



# The AMA and Medical Liability: Principles of Reform

The American Medical Association believes that as the national debate on health care reform proceeds, we must address its high cost, inefficiency and inequity of our medical liability system.

## *The Problem*

People injured by medical malpractice or defective medical products are entitled to fair and prompt compensation for their injuries. All parties should have the right to fair and cost-effective dispute resolution. The AMA believes that in resolving medical and product liability claims, the civil justice system currently:

- Costs too much and works slowly;
- Fails to provide access to the legal system or fair compensation to most patients, while providing exorbitant awards to others;
- Is unable to promptly or cost-effectively identify unfounded claims;
- Fails to promote quality health care or protect patients from avoidable injuries;
- Adds billions annually to the national health care bill in medical liability premium costs and by encouraging doctors to practice "defensive medicine" to hedge against potential lawsuits;
- Threatens access to health care, especially high risk services, such as obstetrics and emergency room care;
- Unnecessarily adds to the cost of pharmaceuticals and medical devices, and
- Inhibits health care product research and development, reducing the availability of potentially valuable new drugs and medical devices.

The impact of our medical liability system has been studied extensively. These studies agree that this inefficient system adds to the serious problems of making health care services available to all and making these services cost-effective.

The federal government, as the single largest purchaser of health care services, has a strong interest in promoting available and quality medical

care and managing its cost. Because of that concern, it should take the lead to address medical liability problems.

## *Principles of Medical Liability Reform*

The over 100 groups including the AMA that participate in the **National Medical Liability Reform Coalition** support the principles articulated below. These principles should guide any restructuring of the current medical liability system.

### **1. Availability of Health Care:**

A compensation system for medical injury should promote the basic goal of providing access to all necessary health care service to all.

### **2. Quality of Health Care:**

A compensation system for medical injury should deter substandard or unethical practices and encourage improvements in the safety and quality of medical care.

### **3. Patient-Professional Relationship:**

A compensation system for medical injury should enhance a cooperative relationship between patient and providers, based on mutual respect and effective communication.

### **4. Fair Compensation:**

A compensation system for medical injury should compensate patients injured by malpractice adequately and equitably.

**5. Prompt Resolution:** A compensation system for medical injury should resolve claims promptly.

**6. Innovation:** A compensation system for medical injury should encourage innovation in diagnosis and treatment, leading to better care.

**7. Predictability:** A compensation system for medical injury should provide predictable outcomes with respect to findings of liability and amount of awards.

**8. Cost Effectiveness:** A compensation system for medical injury should operate efficiently and economically.

We urge the Congress and the President to work on meaningful medical liability reform legislation consistent with the above principles.

TMA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) as a sponsor of continuing medical education for physicians. Nonaccredited organizations may request TMA's joint sponsorship of CME activities. As an accredited sponsor, TMA is authorized to designate certain CME activities for credit in the AMA Physician's Recognition Award Program.

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

### VANDERBILT UNIVERSITY MEDICAL CENTER

#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Sept. 17-20	Critical Care Medicine—Hilton Head, S.C.
Sept. 25-26	International Conference on Growth Factors in Cancer Therapy
Oct. 1-3	Lasers in Otolaryngology: Head and Neck Surgery
Oct. 9-10	Laryngeal Video Endostroboscopy Workshop
Oct. 16-17	Gynecologic Surgery Workshop in Pelviscopy, LLETZ, and Laser
Oct. 20	3rd Annual Neonatology Conference
Oct. 22-24	Vanderbilt Medical Alumni Association's (First Biennial) Reunion 1992
Dec. 3-5	Lasers in Otolaryngology: Head and Neck Surgery

Dec. 11-12	18th Annual High Risk Obstetrics Seminar
Jan. 31-Feb. 5	Practical Aspects of Diagnostic Radiology/Medical Imaging VI—Snowmass Village, Colo.
Feb. 28-Mar. 5	Infectious Diseases—Snowmass Village, Colo.

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

Sept. 24-25	24th Memphis Conference on the Mother, Fetus, and Newborn
Nov. 12-14	College of Medicine Alumni Weekend

##### Knoxville

Oct. 1-3	15th Cancer Concepts Course—Gatlinburg
Oct. 5-7	Advanced Cardiac Life Support Providers Course
Oct. 26-28	12th Annual Smoky Mountains Seminar in Obstetrics and Gynecology—Gatlinburg
Nov. 6-8	14th Annual Otolaryngology Course for Primary Care Physicians—Gatlinburg
November	9th Annual Alzheimer's Disease Symposium—Gatlinburg

##### Chattanooga

Sept. 17-18	Internal Medicine Update
Oct. 1-2	Care of the Aging Patient
Oct. 22-23	Critical Care Medicine

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.



## *Pill-Induced Esophageal Injury*

KERRY L. KLEGAR, M.D. and THOMAS L. YOUNG, M.D.

### Case Report

A 33-year-old woman gave a three- to four-day history of increasing dysphagia and severe odynophagia while finishing a course of doxycycline therapy for an upper respiratory infection; she denied hematemesis or melena, and had no history of peptic ulcer disease.

Upper GI endoscopy showed severe distal esophageal ulcerations with normal surrounding mucosa. Biopsies of this area did not indicate any viral etiology, but what appeared to be remnants of pills were identified at the base of the ulcer. The doxycycline was subsequently discontinued.

### Discussion

Drug-induced esophageal injury was first reported in 1970,<sup>1</sup> and has been reported since that time with increasing frequency. To date, over 221 cases have been reported implicating 26 medications.<sup>2</sup> Among those most commonly cited are tetracycline, doxycycline, emepronium bromide, slow release potassium chloride, acetylsalicylic acid, NSAIDs, and quinidine.

Patients usually have sudden onset of dysphagia, often accompanied by substernal chest pain and odynophagia, but other symptoms, including weight loss, abdominal pain, hematemesis, melena, and fever have also been reported.<sup>3-6</sup> Symptoms typically occur 4 to 12 hours after ingestion of the medication but may be delayed up to several weeks in quinidine-induced cases.<sup>7</sup>

Patient age and sex vary with respect to the med-

ication implicated (i.e., patients with quinidine or potassium chloride-induced ulcerations tend to be older, whereas those with emepronium esophagitis tend to be female and younger). They often report having taken the pill with little or no water or just before going to bed. In addition, reports of feeling the pill "getting stuck" are not uncommon.

Most patients have no previous history of esophageal disease, and in fact often have normal esophageal peristalsis. The most common site of injury is at the level of the aortic arch. This area is characterized by a transition from skeletal to smooth muscle, by external compression from the arch, and by a reduction in amplitude of the esophageal peristaltic wave.<sup>8</sup> All of these factors presumably contribute to pill retention, and thus injury.

Diagnosis of medication-induced esophageal injury is based on a high index of clinical suspicion; it can be confirmed either by double contrast radiographic studies or by endoscopy. Endoscopy is far more sensitive than barium swallow, revealing abnormalities in 99% of patients, given the appropriate clinical setting.<sup>8,9</sup> Findings span a wide spectrum, including mucosal edema, erythema, superficial erosions, strictures, and ulcers ranging from small shallow ulcers to large deep ulcers. Usually the surrounding mucosa is normal. Remnants of pills are occasionally identified at the injury site. Very rarely, mediastinitis can result from deeper injuries, and circumferential strictures can also result from deep penetration injuries.

From the Department of Gastroenterology, University of Tennessee Medical Center at Knoxville.

Reprint requests to University Gastroenterology, P.C., 1928 Alcoa Hwy., Suite 100, Knoxville, TN 37920 (Dr. Young).

Discrete ulcers are seen more frequently with anti-inflammatory drugs, antibiotics, and emepronium bromide. Potassium chloride or quinidine-induced injury is more likely to result in smooth or ulcerated strictures, mucosal edema, nodularity, and profuse exudate.<sup>1,7,8</sup>

In the vast majority of patients, drug-induced esophagitis is considered fully reversible, particularly when recognized early. The offending medication should be discontinued, or, if necessary, changed to a liquid or parenteral form.<sup>10</sup> Antacids and H<sub>2</sub> blockers may provide some additional benefit, as will supplemental nutrition in severe cases.<sup>2</sup>

Prognosis is less favorable in those who develop stricture, with the potential for mortality high,<sup>11,12</sup> fistulation into the aorta and left atrium, as well as esophageal rupture, having been reported.<sup>13-15</sup>

1. Pemberton J: Oesophageal obstruction and ulceration caused by oral potassium therapy. *Br Heart J* 32:267-268, 1970.
2. Eng J: Drug-induced esophagitis. *Am J Gastroenterol* 86:1127-1132, 1991.
3. Aarons B, Bruns BT: Oesophageal ulceration associated with ingestion of doxycycline. *NZ Med J* 91:27, 1980.
4. Williams JG: Drug-induced oesophageal injury. *Br Med J* 2:273, 1979.
5. Puhakka HJ: Drug-induced corrosive injury of the esophagus. *J Laryngol Otol* 92:927-931, 1978.
6. Coates AG, Nostrandt TT, et al: Esophagitis caused by nonsteroidal anti-inflammatory medication: case reports and review of the literature on pill-induced esophageal injury. *South Med J* 79:1094-1097, 1986.
7. Bonane TD, Perrault J, Fowler RS: Esophagitis and esophageal obstruction from quinidine tablets in association with left atrial enlargement: a case report. *Aust Paediatr J* 14:191-192, 1978.
8. Kikendall JW, Friedman AC, Anthony M, et al: Pill-induced esophageal injury: case reports and review of the medical literature. *Dig Dis Sci* 28:174-182, 1983.
9. Walta DC, Giddens JD, Johnson LF, et al: Localized proximal esophagitis secondary to ascorbic acid ingestion and esophageal motor disorder. *Gastroenterology* 70:766-769, 1976.
10. Doman DB, Ginsburg AL: The hazard of drug-induced esophagitis. *Hosp Pract* 16:17-25, 1981.
11. Whetney B, Croxon R: Dysphagia caused by cardiac enlargement. *Clin Radiol* 23:147-152, 1972.
12. Lambert JR, Newman A: Ulceration and stricture of the esophagus due to oral potassium chloride (slow release tablet) therapy. *Am J Gastroenterol* 73:508-511, 1980.
13. Chesshyre MH, Brainbridge NV: Dysphagia caused by left atrial enlargement after mitral Starr valve replacement. *Br Heart J* 33:799-802, 1971.
14. Sumithran E, Lim KH, Chiam HL: Atrio-oesophageal fistula complicating mitral valve disease. *Br Med J* 2:1552-1553, 1979.
15. Cochrane P: Spontaneous oesophageal rupture after carbachol therapy. *Br Med J* 1:463-464, 1973.

## HELP FOR IMPAIRED PHYSICIANS

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

## HELP US TO HELP

Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.



# Difficulties in the Diagnosis and Treatment of Drug-Resistant Tuberculosis And Tuberculous Empyema

JACK GLISSON, M.D. and JAY B. MEHTA, M.D.

## Introduction

Tuberculosis (TB) is an ancient enemy of mankind. In the past 50 years, new diagnostic and therapeutic modalities have made significant changes in the management of the disease. With the evolution of chemotherapy, the treatment of TB changed from inpatient management with generally poor results to outpatient therapy with almost uniform success.<sup>1</sup> When isoniazid (INH) became available in 1952, it became possible with multiple drug therapy to bring most cases into a state of clinical and bacteriological remission within a matter of months.<sup>2</sup> Despite the success of drug therapy, however, the management of patients with the disease caused by *Mycobacterium tuberculosis* (*M. TB*) that is resistant to one or more of the generally effective drugs constitutes a major challenge for the physician. In the United States the incidence of *M. TB* remains at 10.3 per 100,000 population, and for the past three years has shown no further decline in the incidence of new cases. The incidence of TB in Tennessee (11.5 per 100,000) is slightly higher than the national rate, resulting in a caseload of approximately 600 new cases of TB annually. The current epidemic of HIV infection and AIDS has made TB a new challenge, and reports are surfacing that drug resistance may be becoming a new problem in the eradication of the disease.<sup>3,4</sup>

## Case Report

We encountered an unusual and challenging case of tuberculous empyema in a native born East Tennessean with complicated TB from primary drug-resistant *M. TB*. The patient, a 34-year-old white man, was referred to our TB clinic in April 1991 because his primary physician suspected TB. After hospitalization for an unrelated problem, he was evaluated for cough productive of sputum that was AFB positive. The cough and sputum production had become most pronounced about one month before his visit to the TB clinic. He also suffered a 10-lb weight loss and noticed night fever, sweats, and occasional periods of chest pain, but he had a history of mild chronic cough attributed to cigarette smoking.

**Past Medical History/Family History.** The patient gave a fascinating medical history. His father had TB approximately ten years ago and his uncle had suffered from the disease 15 years earlier. When we reviewed the records of the patient's family members, we found that his uncle's TB was resistant to INH and streptomycin (SM). Our patient evidently had a positive PPD in 1969 and was treated with INH for 14 months; based on the available information, it was clear that compliance had been suboptimal. He had had an episode of testicular swelling and epididymitis with high fever in 1987, and his urine had also contained many leukocytes without the growth of a specific bacterial pathogen. A complete diagnosis was not made, but orchitis, epididymitis, and possible urinary tract infection was the working diagnosis. He also gave a history of left earache and lymphadenopathy on the right. He had been evaluated two to three months before this admission by an otolaryngologist, who noted redness and swelling of the tympanic membrane, but cultures were not obtained; the condition responded to penicillin therapy.

**Physical Examination.** The physical examination revealed a 34-year-old white man in no acute distress. ENT examination was unremarkable; blood pressure was 140/60 mm Hg, pulse 90/min, temperature 99.4°F, respiratory rate 16/min. The chest showed no rales or rhonchi, and the heart showed a regular rhythm, without murmurs or gallop. Abdominal examination revealed no hepatosplenomegaly. Extremities showed no clubbing, cyanosis, or swelling. CBC and chem-scan were unremarkable. Chest x-ray showed a right upper lobe cavity with infiltrate, and the trachea was in the midline. The diaphragm was well outlined and sharp, and heart size was within normal limits.

From the Divisions of Pulmonary Medicine (Dr. Glisson) and Preventive Medicine (Dr. Mehta), Department of Internal Medicine, James H. Quillen College of Medicine, East Tennessee State University, Johnson City.

Reprint requests to Department of Internal Medicine, James H. Quillen College of Medicine, PO Box 70622, Johnson City, TN 37614 (Dr. Mehta).

## DRUG-RESISTANT TUBERCULOSIS/Glisson

**Clinical Course.** Sputum examination revealed acid-fast organisms, and grew *M. TB* when cultured. The patient was started on INH, rifampin (RMP), and ethambutol (EMB) in standard doses with vitamin B<sub>6</sub> 50 mg daily. Subsequently, several positive sputum cultures were obtained, 18 of which grew *M. TB*. Since there was suspicion of drug-resistant TB, we had submitted original cultures for mycobacterial sensitivity (Table 1). The patient had INH and SM drug resistance which was noticed on cross-culture before any anti-TB therapy was initiated. At that time, the patient was switched to supervised therapy to improve his compliance. Ciprofloxacin (CIP) 500 mg/day orally and pyrazinamide (PZA) 1.5 gm/day were added to the regimen, and periodic liver function tests and eye examinations for visual acuity and color discrimination were monitored while multiple drug therapy continued.

In October 1991, while the patient was on multiple drug therapy (INH, RMP, EMB, PZA, and CIP), he suddenly developed coughing and shortness of breath. The patient went to the emergency room, where he was found to have had a spontaneous pneumothorax. He was admitted to the hospital and treated with chest tube insertion; subsequent to removal of the tube, he came to the clinic because of a nonhealing wound with serosanguineous discharge, which was positive for *M. TB*. The chest x-ray showed worsening of the right upper lobe infiltrate, blunting of the right costophrenic angle, and questionable empyema. The left apical region also appeared to have some increased interstitial infiltrate. Clinically the patient already had a pleurocutaneous fistula due to previous chest tube and TB. In November 1991, we obtained thoracic surgical consultation to further evaluate the possibility of empyema and drug-resistant TB. A few weeks later, decortication of the pleura was done and a chest tube was inserted for drainage. The patient continued to have positive cultures from both sputum and pleural secretions. We discontinued the CIP and added capreomycin (CAP) and ethionamide (ETH), but in the face of this regimen the patient continued to have drainage from the chest tube. On Jan. 17, he developed high fever, chills, and yellow-green pleural secretions. Chest radiograph showed atelectasis and infiltrate in the right basal area. He was, therefore, admitted with a diagnosis of pneumonia. Purulent fluid from the chest tube bag grew *Pseudomonas aeruginosa*. The patient responded to a course of intravenous tobramycin, and over a period of ten days his fever subsided; the color of the chest tube drainage improved to a whitish-yellow. The patient is still receiving the supervised course of multiple anti-TB therapy and yet there have been no clinical, pathologic, or bacteriologic signs of improvement in his TB. Fortunately, the pleurocutaneous fistula healed three weeks after removal of the chest tube.

## Discussion

We are reporting this case to demonstrate the difficulty involved in treating drug-resistant tuberculosis. The patient is a life-long resident of East Tennessee, and has never traveled abroad. His HIV test results were negative, and he has no clinical evidence of immunosuppression. He probably acquired the primary infection from his father, who had drug-resistant TB several years earlier. Fig. 1 demonstrates results of the contact investigation wherein a large number of family members had TB and/or positive PPD skin tests. DNA fingerprint (subtype) demonstrated that two of these active cases had the same mycobacterial subtype as the index case.

**TABLE 1**

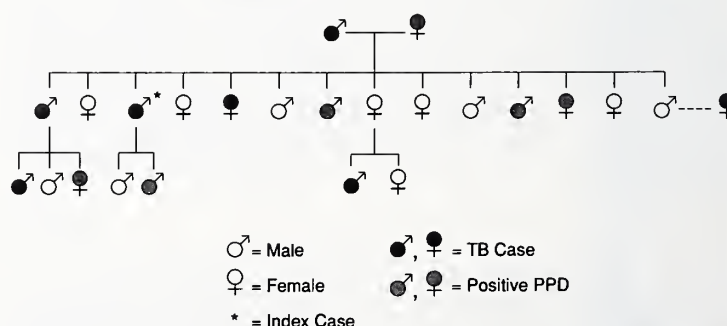
**DRUG SUSCEPTIBILITY TO**  
***MYCOBACTERIUM TUBERCULOSIS***

Drug ( $\mu\text{g/ml}$ )	Colony Count (2)	Resistance
Control	300	
CAP 10.0	0	0%
SM 2.0	300	100%
SM 10.0	300	100%
INH 0.2	300	100%
INH 5.0	0	0%
CIP 2.0	0	0%
RMP 1.0	0	0%
ETH 10.0	0	0%

CAP = capreomycin; SM = streptomycin; INH = isoniazid;  
CIP = ciprofloxacin; RMP = rifampin; ETH = ethionamide.

Interestingly, his past medical history also suggests other extrapulmonary sites of tuberculous infection, i.e., the GI tract and ear. After supervised chemotherapy and multiple anti-TB drugs, he remains smear and culture positive and his empyema remains a major clinical challenge. Chest x-rays and CAT scan of the chest are described in Figs. 2 and 3.

In the past ten years, the previous 5% annual decline in TB has stopped and the CDC has reported increasing numbers of cases. The state of Tennessee continues to experience more than 600 active new cases of TB each year. Since the current HIV epidemic began, TB has become a major problem in metropolitan areas of the country, particularly New York and San Francisco. The incidence of TB is also very high among Latin American immigrants to Miami. Studies have shown that a large percentage of these patients have extrapulmonary TB. There has also been growing concern in some areas of the United States and Canada about the increasing prevalence of resistance to antituberculous medications.



**Figure 1.** Contact investigation of index case with drug-resistant tuberculous empyema.



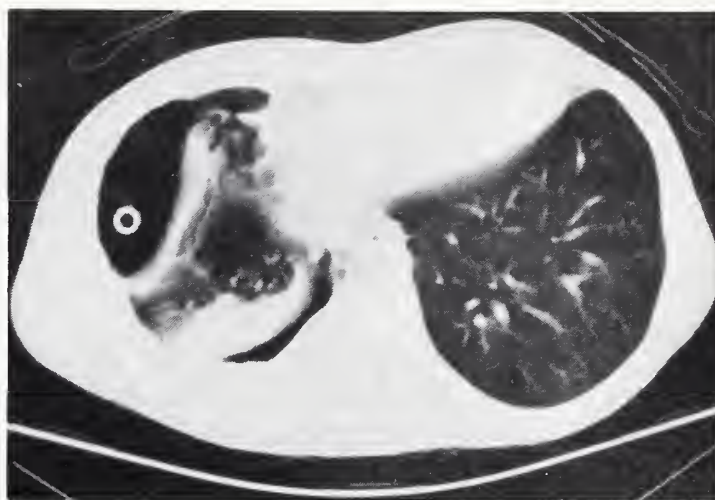


**Figure 2.** Chest radiograph: Chest tube drainage of tuberculous empyema.

Both published<sup>5-7</sup> and anecdotal reports have drawn attention to such resistance in three groups of patients: (1) ghetto residents, (2) immigrants from areas of the world with high incidence of infection by resistant organisms, and (3) U.S. citizens who have spent time in those same areas of the world.<sup>8</sup> While most drug-resistant TB patients fall into one or another of the categories mentioned above, or are previously treated TB patients, primary drug resistance, i.e., drug resistance that existed in a previously untreated patient, is rather rare in East Tennessee, only seven or eight cases having been reported in the past 15 years. This year, however, we have seen three patients with primary drug resistance in our TB clinic.

The incidence of drug-resistant TB is increasing in many parts of the world and in some limited areas of the United States. The major factors appear to be: (1) uncontrolled use of anti-TB medications in some developing countries, (2) poor compliance, (3) inappropriate treatment by physicians who are unfamiliar with drug resistance, and (4) transmission of TB from known drug-resistant cases.

Primary resistance to SM or INH is most common, but we are also seeing a few cases of resistance to RMP. It is generally known that PZA is not very effective in preventing the emergence of RMP resistance during this therapy when primary INH resis-



**Figure 3.** CAT scan of the chest: Tuberculous empyema, pneumothorax, and pleural reaction.

tance is suspected. A fourth drug, usually EMB, should be added to the initial regimen when the patient is at increased risk for primary INH resistance. In most studies of INH preventive therapy, it has been thought that patients who develop TB after failure of INH chemoprophylaxis are usually sensitive to the drug. Our case, however, suggests failure of INH preventive therapy possibly due to the source being a drug-resistant case of TB. Two of the infected contacts to this case are being treated with RMP for prevention.

Treating tuberculous empyema is an unusual clinical challenge. Some evidence suggests that the thick, calcified pleural walls limit penetration of the drugs into the infected empyema space, resulting in suboptimal drug concentrations, which may select for drug resistance. Therefore, surgical intervention might be a consideration.

The following criteria for surgery in drug-resistant TB have been identified:<sup>9</sup> (1) primary drug resistance so extensive that there is a high probability of failure or relapse, (2) disease sufficiently localized that the great preponderance of radiographically visible disease could be resected with the expectation of adequate cardiopulmonary capacity after surgery, and (3) sufficient drug activity to diminish the mycobacterial burden enough to facilitate probable healing of the bronchial stump.

With his compromised pulmonary function and bilateral disease, our patient was not a candidate for pulmonary resection, but decortication was carried out, especially since the patient already had a chest tube inserted as treatment for spontaneous pneumothorax, a rare complication of pulmonary TB. Even after removal of the chest tube, the patient continued to have symptoms and a TB-induced pleurocutaneous fistula. In this case, we used almost all anti-TB drugs

available to our pharmacologic armamentarium. After six months of multiple drug therapy, our patient's smears have become negative for TB and his bronchopleural fistula has healed. The patient has gained a few pounds and has become afebrile. □

## Acknowledgment

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# Changing Patterns of Infectious Diseases

HARRIS D. RILEY JR., M.D.

In the past 20 or so years some of the more striking, important, and interesting changes in patterns of disease have occurred among those due to transmissible agents. Among the many changes are the recognition of new causative agents, new diseases, new clinical expressions for old diseases, new ecologic and epidemiologic roles for traditional pathogens, and new methods of disease transmission. Two of the important causes for some of these changes include the impact of immigration and the effects of medical progress. However, there are others, including alteration in life style such as sexual behavior and leisure activities.

It is the purpose of this presentation to review some of these changing patterns and other developments in infectious diseases.

There are many new diseases or entities that were not even part of the medical vocabulary some 20 to 25 years ago (Table 1).

In recent years new pathogens that cause new clinical disorders have been identified. Perhaps the most prominent among these is the retrovirus—human immunodeficiency virus (HIV), the cause of the acquired immunodeficiency syndrome (AIDS). The clinical entity of Lyme disease has been described and its causative agent, *Borrelia burgdorferi*, characterized. The newly identified organism, *Legionella pneumophila*, produces pneumonia that may be clinically quite severe. Cryptosporidia, an acid-fast protozoan of the Coccidia order, has been identified as a relatively common cause of acute self-limited diarrheal disease of worldwide distribution, as well as a major cause of severe, protracted diarrhea in immunocompromised individuals. Recently, an organism that is identical or closely related to the rickettsia *Ehrlichia canis* has been identified mor-

phologically and serologically as causing infection and illness in humans. A perplexing situation has been presented by the recently demonstrated association of small subviral particles, which contain no detectable nucleic acid and have been called prions, with degenerative central nervous diseases previously attributed to slow viruses. Should prions prove ultimately to be transmissible agents, they will be unique pathogens that will demand entirely new approaches both to therapy and to possible immunization.

In addition, several long-recognized infections have now been connected to a causal infecting organism for the first time. Human parvovirus and human herpesvirus-6 have been implicated in the etiology of erythema infectiosum and roseola infantum, respectively, both important idiopathic febrile illnesses of infants and children. Peptic ulcer disease may prove to be of microbial origin, as evidence accumulates linking *Helicobacter pylori* with that disorder. The causes of diarrheal disease and of respiratory infec-

TABLE 1  
SOME NEW DISEASES OR ENTITIES

Acquired immunodeficiency syndrome	<i>Blastocystis hominis</i> gastroenteritis
Toxic shock syndrome	<i>Campylobacter</i> enteritis
Lyme disease	<i>Pseudomonas</i> folliculitis
Infant botulism	Amebic meningoencephalitis
Kawasaki's disease	<i>Vibrio parahemolyticus</i> enteritis
Cryptosporidiosis	<i>Clostridium difficile</i> diarrhea
Delta virus hepatitis	Babesiosis
Hepatitis B	Lassa fever
Non-A, non-B hepatitis	Rotavirus gastroenteritis
Hepatitis C	Parvovirus infections
Legionnaire's disease	Ehrlichiosis
<i>Chlamydia</i> infections including pneumonia	<i>Helicobacter pylori</i> ulcer disease
Isoporiasis	

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tions have been expanded in recent years. Some of the diseases that affect children are listed in Table 2.

Certain new agents are associated with human infection, but their complete clinical picture has not been elucidated. These include orbiviruses, reoviruses, and lentiviruses, the latter of which apparently produces slow virus infections.

The dramatic changes in travel throughout the world have brought with them the appearance of certain diseases that have not been prevalent in this country for years. For example, malaria is being seen much more frequently in the United States as an imported disease. Certain old infections are appearing in new clinical expressions, such as atypical measles (rubeola) in adolescents and others as a result of earlier immunization, and infantile botulism. Long-known pathogens are occupying new ecologic roles—*Pseudomonas aeruginosa* as a cause of osteomyelitis of the foot from puncture wounds, for example. Recently bacillary angiomatosis, bacillary peliosis hepatitis, and certain episodes of unexplained fever in immunologically impaired patients have been shown to be due to *Rochalimaea henselae*, a recently characterized bacterium.

Well-known organisms have adopted new tactics. Toxic shock syndrome is the result of a previously unknown toxin produced by a familiar pathogen, *Staphylococcus aureus*. Common pathogens have demonstrated in recent years increasing resistance to antimicrobial agents to which they have long been susceptible. Examples include the development of resistance to penicillin G of strains of *Streptococcus pneumoniae*, and to ampicillin and chloramphenicol of *Haemophilus influenzae*. More and more strains of *Mycobacterium tuberculosis* are becoming resistant to antituberculosis therapy. If new tricks learned by old microbes were not trouble enough, novel pathogens, as noted above, have been identified in recent years. Most prominent among these is HIV, the cause of AIDS. The devastation of the immune system produced by this virus has in turn spawned opportunistic pathogens that were formerly mere curiosities. New modes of transmission have occurred. Examples include Creutzfeldt-Jakob disease in recipients of human growth hormone, rabies following corneal transplantation, and AIDS, hepatitis, and other diseases following transfusions of blood and blood products.

Certain diseases have been with us, the etiologic agent of which was not known or not recognized. Examples include infections due to atypical mycobacteria, *Mycoplasma pneumoniae* and *Urea-*

*plasma*, *Chlamydia*, and *Yersinia*. Group A streptococcal infections of increased severity have been observed recently. Acute rheumatic fever had virtually disappeared in this country, but in recent years it has reappeared in many regions. On the other hand, acute poststreptococcal glomerulonephritis is increasingly uncommon.

Medical progress in recent years has brought untold benefits to society; certain of them, however, have been accompanied by infectious complications. Therapeutic interventions that have been recognized as associated with such complications include intravenous fluid therapy, indwelling urinary catheters, cardiovascular and nervous system prosthetic devices, sophisticated life-support and critical care facilities, organ transplantation, immunosuppressive therapy, and cancer chemotherapy. Longer survival from conditions formerly causing early death has resulted in a growing population of patients with impaired host defenses who are at increased risk of developing infections.

Nosocomial infections have also played an important role in the changing pattern of infectious diseases. Nosocomial infections have existed as long as there have been hospitals, but attention was not focused on them until the middle of the 19th century. Historically, shifts in nosocomial etiologic agents have occurred every ten years or so. The introduction and widespread use of sulfonamides and then penicillin coincided with the reduction in importance of

**TABLE 2**  
**SOME INFECTIOUS DISEASES AFFECTING CHILDREN**

Illness	Infecting Organism
Cat-scratch disease	<i>Afipia felis</i> , a pleomorphic gram-negative bacillus.
Erythema infectiosum (fifth disease)	Parvovirus B19.
Fetal hydrops	
Aplastic crisis	
Infectious diarrhea	Adenovirus. <i>Aeromonas hydrophila</i> . <i>Campylobacter</i> spp. <i>Cryptosporidium</i> spp. Rotavirus. <i>Yersinia enterocolitica</i> . Norwalk virus. Astrovirus.
Hemolytic uremic syndrome and hemorrhagic colitis	Enterohemorrhagic <i>Escherichia coli</i> 0157:H7.
Respiratory tract disease	<i>Legionella pneumophila</i> . <i>Chlamydia trachomatis</i> . <i>C. psittaci</i> (TWAR strain).
Roseola infantum (Exanthem subitum)	Human herpesvirus-6.



hospital-acquired group A streptococcal infections. During the 1950s and early 1960s, *S. aureus* became the most prominent pathogen in newborn nursery and other outbreaks. The diminution in staphylococcal infections in the 1960s and 1970s was largely unrelated to the many attempts that were made to control the problem. Subsequently, enteric gram-negative bacilli and *Pseudomonas*, together with *S. aureus*, became the major bacterial pathogens acquired within hospitals. In the 1970s, group B streptococcal infections became prominent in neonatal populations. In the 1980s, methicillin-resistant strains of *S. aureus* and *S. epidermis* emerged as difficult nosocomial problems, particularly in neonatal intensive care units. The array of microorganisms recognized as causing nosocomial infections has been further broadened by increased awareness of viruses as agents of hospital-associated infections.

Certain nosocomial infections are diseases of medical progress. The selective pressure of the widespread use of broad-spectrum antibiotics has favored the emergence of multi-resistant bacteria and fungi as important opportunistic pathogens. As medical technology has advanced, the variety of procedures that patients undergo has increased, often with some penalty in increased risk of infection. Changes in the population at risk, changes in the spectrum of available pathogens, and increased use of sophisticated therapeutic and diagnostic modalities have contrib-

uted to the evolution of problems with hospital-acquired infections.

New populations at risk have contributed significantly to the changing pattern of infectious diseases. Few have had such an impact as the occurrence of various infections—diarrheal disease, respiratory infections, and other transmissible illnesses—in child day care populations.<sup>1</sup> In newborn populations the group B streptococcus has outdistanced *Escherichia coli* as a cause of sepsis.

Only a few years ago there were only five recognized venereal (as they were termed then) or sexually transmitted diseases (STD): syphilis, gonorrhea, chancroid, granuloma inguinale, and lymphogranuloma venereum. The list has now been expanded to include at least 20 other pathogens that are largely or exclusively dependent on sexual contact for transmission and propagation. Some of the common infections due to these pathogens include AIDS, giardiasis, amebiasis, shigellosis, salmonellosis, genital warts, *Chlamydia urethritis*, and pelvic inflammatory disease. Many occur in children and adolescents.

Patterns of infectious diseases will continue to change. These changing patterns offer numerous lessons for all members of the health-related fields.

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# Aortoiliac Reconstruction Following Penetrating Injury

MARTIN A. CROCE, M.D.; RONALD M. STEWART, M.D.; and TIMOTHY C. FABIAN, M.D.

## Introduction

The mortality following major abdominal vascular injury has decreased over the past decade due to improved prehospital care, rapid transport to designated trauma centers, and an improved understanding of hemorrhagic shock and resuscitation. The basic operative principles of proximal and distal control with prompt repair of the injury, however, have not changed. The following case illustrates several important points regarding major abdominal vascular injuries relative to intraoperative contamination, method of repair, and postoperative complications.

## Case Report

A 15-year-old man was transported by ground following a stab wound just to the right of the umbilicus. Initial vital signs at the scene of the injury were remarkable for a palpable blood pressure of 60 mm Hg and a pulse of 130/min. He was rapidly transported to the Presley Regional Trauma Center, during which two large bore IV lines were placed in each arm, and the leg portions of MAST trousers were inflated. On arrival to the Trauma Center, No. 8 French catheters were placed in the right femoral vein and left antecubital vein, orotracheal intubation was performed, and a urinary catheter and nasogastric tube were inserted. The initial survey revealed an ill-appearing, pale, lethargic adolescent whose respirations were labored. His abdomen was very distended and had a 3-cm stab wound to the right of the umbilicus. Femoral pulses were absent. The initial pulse was 140/min with a blood pressure of 70/54 mm Hg. The patient was given 2 liters of fluid over three minutes with no hemodynamic response. O-negative and type-specific blood were administered. He was given 2 gm of cefotetan and transported directly to the operating room ten minutes after arrival. The abdomen was entered through a generous midline incision, and the aorta was manually compressed at the esophageal hiatus. The leg portions of the MAST trousers were deflated at this time. There was a large retroperitoneal hematoma of approximately 2 liters of intraperitoneal blood. A through-and-through small bowel injury in the proximal jejunum with a small amount of spillage was identified and controlled with a Babcock clamp. The infrarenal aorta and vena cava were exposed by reflecting the right colon and small bowel mesentery superiorly and to the left, disclosing a laceration of the aorta at just above the bifurcation. After proximal and distal control

was obtained, the injury was then further defined. There was a through-and-through tangential, stellate laceration immediately proximal to and involving the bifurcation of the aorta. The most distal extent of this laceration involved the origin of the right iliac artery, resulting in the destruction of well over 50% of the aorta at the bifurcation. Primary repair of the individual lacerations would result in an unacceptable narrowing of the distal aorta. Debriding of the area of laceration resulted in a 3-cm gap between the proximal aorta and the bifurcation, so that end-to-end reanastomosis was not feasible due to the length of the intervening gap and the proximity to the bifurcation. Since reimplantation of the right iliac into the left iliac and subsequent repair of the remaining defect was not possible after debridement, it was elected to place a polytetrafluoroethylene (PTFE) 14-mm × 7-mm bifurcated graft. His retroperitoneum was then copiously irrigated with sterile saline and the peritoneum was reapproximated over the graft. The small bowel injuries were then closed and the peritoneal cavity was copiously irrigated with sterile saline.

After abdominal closure, attention was then turned to his lower extremities. Bilateral four-compartment fasciotomies were performed. The anterior compartments were both tight and the muscle was mottled with patchy areas of gray. This muscle was minimally contractile, but did bleed when cut. Minimal debridement was performed following full-length fasciotomies. After 24 hours, the anterior compartments appeared more viable and he was able to dorsiflex his feet. The remainder of this postoperative course was fairly unremarkable. He underwent skin grafting of his fasciotomy sites on postoperative day 8 and was discharged on postoperative day 16, walking without difficulty.

## Discussion

This case illustrates several important points relative to major vascular trauma. Prompt resuscitation with crystalloids and blood is mandatory. This resuscitation is facilitated by the use of large bore high-flow catheters placed on both sides of the diaphragm. Immediate laparotomy is mandatory for suspected major abdominal vascular injuries. Preoperative delays, even if short, frequently lead to death in this subset of patients. Fluid resuscitation is ineffective for major aortic injuries until proximal control is obtained; this is easily done by manually compressing the aorta at the esophageal hiatus. There are a variety of techniques for exposing the abdominal aorta, which are conveniently divided into supraceliac and infrarenal exposures. In most cases the entire infrarenal aorta can be exposed by reflecting the

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right colon and small bowel mesentery superiorly and to the left. This technique allows for complete exposure of the entire retroperitoneum below the renal vessels.

There are a number of options for surgical therapy of aortic injuries. The majority can be primarily repaired, usually with a simple lateral repair, since the aorta is such a high-flow system and a compromised lumen of up to 50% can usually be tolerated without any problems of distal ischemia. It is usually beneficial to use pledgeted sutures when performing lateral repair so the suture will not tear through the aortic wall. If lateral repair is not possible, then a patch angioplasty may be performed. We would normally use PTFE as the patch material due to its ready availability, durability, and relative resistance to infection.<sup>1-3</sup> For selected injuries the aorta may be debrided, mobilized, and primarily reanastomosed, but the degree of retraction is always quite impressive once the aorta is completely divided. For extensive aortic injuries, such as the one described, we favor replacement with a PTFE tube graft. We, as most, are concerned about the possibility of graft infection in these cases, although its reported incidence has been surprisingly low.<sup>1</sup> In the very rare situation of massive fecal contamination and extensive infrarenal aortic injury we would strongly consider aortic ligation with extra-anatomic reconstruction (axillo-femoral bypass).<sup>4</sup> Numerous autologous vein sites have been proposed for aortic reconstruction, including using the vena cava as an interposition or Y-graft.<sup>5</sup> We believe these recommendations are quite theoretical and impractical, and introduce new anatomic problems associated with removal of the veins.

Common iliac artery injuries may also be difficult to repair. Several options are available to the surgeon. If primary repair or resection and reanastomosis are not possible, then ligation just proximal to the injury and reimplantation of the common iliac into the contralateral iliac artery is possible.<sup>6</sup> This method of repair is fairly attractive, since it avoids placement of any prosthetic material and is our preferred method of reconstruction in the face of contamination from associated hollow viscus injuries. If that is not possible, then the surgeon is faced with two remaining possibilities. First, the involved vessel can be ligated and extra-anatomic bypass can be performed to prevent distal ischemia. Ligation of the common iliac artery is not advisable, since about 50% of those cases will result in profound ischemia to the leg.<sup>7</sup> If the common iliac must be ligated because of heavy contamination from associated hollow viscus injury, then after the abdomen is closed, a femoro-femoral bypass can be performed to reestablish circulation to the involved leg. The other surgical option is the placement of an interposition graft. Saphenous vein may be used, but may dissolve in the face of infection.<sup>1</sup> Our preferred conduit is PTFE, since it has excellent flow characteristics, does not require pre-clotting, and is probably somewhat more resistant to infection than is Dacron.

In the setting of profound hemorrhagic shock and prolonged aortic clamping, both lower extremities are susceptible to profound ischemic changes. The areas most tenuous are the compartments of the lower leg, particularly the anterior compartment. Our patient clearly illustrates this point. Two points deserve emphasis: the role of fasciotomies and deflation of the MAST trousers. The latter is obvious if remembered. If MAST trousers are already in place, one should remember to deflate the leg portion once aortic control is obtained and hemodynamic stability is restored. Such a simple thing is easy to forget during the course of a major vascular reconstruction. We almost always perform four-compartment fasciotomies immediately after closure of the abdomen, since reperfusion of the ischemic muscle will result in massive swelling. The flexors in the anterior compartment seem to be the most susceptible to this reperfusion injury, probably due to a variety of anatomic factors. If one does not perform fasciotomy at the initial procedure, then compartmental pressures must be monitored very closely and fasciotomy then performed at any sign of increasing compartmental pressures. We have not been pleased with this selective approach, as we have seen situations where necessary fasciotomies were delayed for several hours with disastrous results. The easiest and safest time to perform the compartment decompression is at the initial procedure.

## Summary

In summary, there are several factors essential to successful treatment of major vascular abdominal injuries. Prompt resuscitation and abdominal exploration is paramount. Proximal control can quickly be obtained at the esophageal hiatus and adequate exposure of the retroperitoneum is mandatory. Most aortic injuries can be repaired primarily; however, if an arterial substitute is necessary, then PTFE is the substitute of choice. Reimplantation of the injured iliac artery to the contralateral iliac artery is an option for bifurcation injuries if that will not inordinately constrict the lumen. And finally, four-compartment fasciotomies will decompress the lower extremities and prevent ischemic muscle necrosis following reperfusion injury.

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## A Patient With Cirrhosis and a Tan

### Case Report

A 47-year-old man was admitted to Vanderbilt University Hospital for evaluation of cirrhosis. He had been well until 1985, when he was admitted to a hospital for epistaxis, and was told he had "liver problems." He did well until April of 1991, when he started gaining weight and complained of increased abdominal girth and pedal edema. He was admitted to a local hospital, where abdominal CT scan and ultrasound study both revealed a large volume of ascites. Tests for hepatitis A, B, and C were negative. He reported having drunk 24 beers a day for 20 years, but said he had not drunk any alcohol for nine months. A diagnosis of alcoholic cirrhosis was made.

After large-volume paracentesis, the patient was treated with spironolactone and furosemide and discharged; he lost 40 lb. He later developed encephalopathy and he was treated with lactulose, and in January of 1992, he came to the gastroenterology clinic at Vanderbilt, seeking a second opinion.

Physical examination revealed a chronically ill appearing man with a temperature of 97.8°F, respiratory rate 16/min, pulse 70/min, and blood pressure 110/50 mm Hg. The skin was tanned, with spider angiomas; the sclerae were not icteric. The abdomen was distended with ascites and mildly tender, with a liver span of 8 cm. The spleen was enlarged, there was pedal edema, and the testicles atrophied. The stool was negative for blood.

Laboratory examination revealed an aspartate aminotransferase (AST) of 75 IU/L (normal 4 to 40), and alanine aminotransferase (ALT) 142 IU/L (normal 4 to 40), a bilirubin of 3.1 mg/dl (normal 0.2 to 1.2), and an albumen of 3.4 gm/dl (normal 3.5 to 4.0). The prothrombin time was 15 seconds. An alphafetoprotein was 24.6 ng/ml (normal 0 to 9.9). A serum iron was 226 µg/dl (normal 50 to 150), total iron binding capacity 231 µg/dl (normal 250 to 450), and ferritin 1,060 ng/ml (normal 10 to 300). Tests for hepatitis A, B, and C were again negative. A CT scan of the abdomen revealed a dense, homogeneous liver, consistent with hemochromatosis. There were gastric varices and marked ascites.

The patient was treated with vitamin K and fresh frozen plasma in an effort to correct his prothrombin time; his bleeding time was five minutes. A transjugular liver biopsy was done without complications, but yielded insufficient tissue to make a definitive diagnosis of hemochromatosis.

A strong clinical suspicion of hemochromatosis then prompted the patient's physician to measure serum iron, ferritin, and TIBC levels in the patient's three siblings. They were normal in one brother, but a second brother had markedly elevated iron and ferritin levels at 181 µg/dl and 1,278 ng/ml, respectively, with TIBC decreased (199 µg/dl) and a transferrin saturation of 91%. A biopsy of this brother's liver revealed hemochromatosis and cirrhosis. The patient's sister had a modestly elevated ferritin level (529 ng/ml), with a TIBC in the low normal range (278 µg/dl). Based on these findings, it was recommended that the patient's sister and one brother have a liver biopsy to confirm the suspected diagnosis of hemochromatosis.

### Discussion

Hemochromatosis is an autosomal recessive disease resulting in iron overload. Hemochromatosis is caused by an abnormal gene on the short arm of chromosome 6, and closely linked to the HLA-A locus.<sup>1</sup> The exact product of this gene responsible for hemochromatosis is unknown. In the United States and Europe, the frequency of the gene is 5%.<sup>2</sup> Approximately 10% of the population is heterozygous for the gene, while 0.2% to 0.7% is homozygous.

Hemochromatosis is characterized by inappropriate iron absorption in the face of enlarged body stores of iron. The normal body store of iron is 3 to 4 gm; normal daily iron absorption is 1 mg/day.<sup>3</sup> Iron absorption in hemochromatosis ranges from 1 to 3 mg/day, leading to a total body pool of 15 to 35 gm of iron over 35 to 60 years.

The clinical expression of hemochromatosis depends on the patient's sex and age, and specific pattern of organ damage. Typically, hemochromatosis becomes manifest later in life (e.g., the 5th and 6th decades). Ninety percent of patients are men,<sup>4</sup> which has been attributed to loss of iron by women through menses and pregnancies.

The liver is a major site of iron storage. Typically, hemosiderin granules are seen in hepatocytes and bile duct epithelium, but rarely in Kupffer cells.<sup>4</sup> Varying degrees of fibrosis may be seen. There is an association between hemochromatosis and alcohol abuse, yet patients who have hemochromatosis and drink alcohol tend to have lower hepatic iron levels than those who don't.<sup>5</sup> Hepatic function improves with phlebotomy.<sup>2</sup> Finally, patients with hemochromatosis have approximately a 200-fold increased risk of hepatoma.<sup>2</sup>

Forty percent to sixty percent of patients with hemochromatosis develop diabetes mellitus.<sup>6,7</sup> Iron is deposited in acinar cells and B cells, but it spares islet cells A, D, and PP cells,<sup>8</sup> so that the secretion of glucagon is normal. The anterior pituitary is another common site of iron deposition.<sup>9</sup> Men develop impotence, loss of libido, and testicular atrophy.<sup>4</sup> Levels of FSH and LH are reduced, though patients with hemochromatosis and cirrhosis generally do not exhibit features of hyperestrinism such as gynecomastia and spider angiomas.

Presented by Mark R. Kaplan, M.D., chief medical resident, Nashville Veterans Affairs Medical Center.

(Continued on page 432)



# Radiology Case of the Month

S. TODD ROTH, M.D. and ROBERT E. LASTER JR., M.D.

## Case Report

The patient is a 78-year-old man who arrived in the emergency room (ER) complaining of acute onset of severe chest and back pain. Physical examination revealed decreased radial pulses bilaterally. The patient was diaphoretic and mildly short of breath. On return to the ER after CT of the chest, he went into cardiopulmonary arrest. Attempts at resuscitation were unsuccessful. After examining the CT images in Figs. 1 and 2, and considering the history, choose the most likely diagnosis:

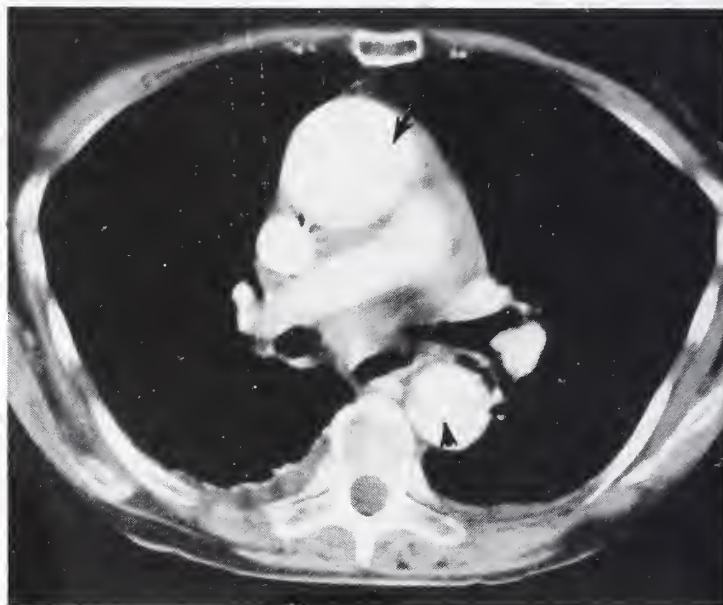
- (1) Acute myocardial infarction
- (2) Pericarditis
- (3) Acute aortic dissection with hemopericardium
- (4) Rupture of the esophagus (Boerhaave's syndrome)

## Discussion

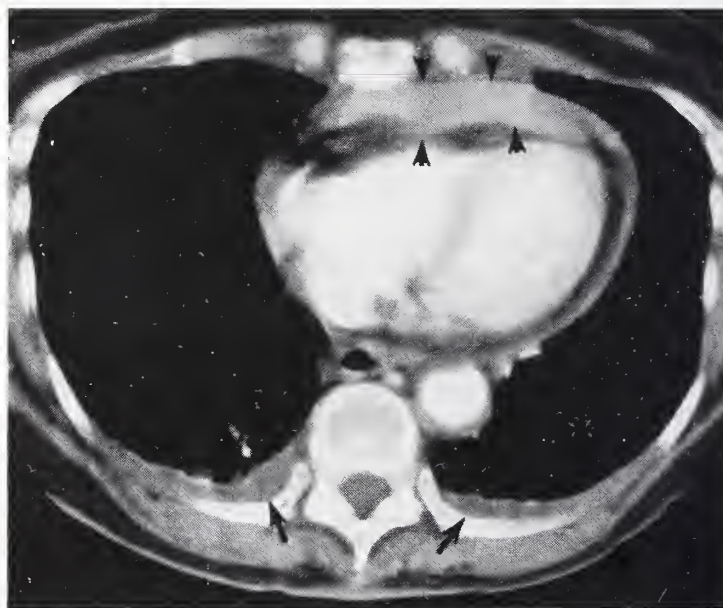
The axial CT image in Fig. 1 was obtained just above the root of the aorta. The CT shows dissection of both the ascending and descending portions of the aortic arch; the intimal flap is clearly seen in both portions, and the ascending portion is markedly dilated. Fig. 2 shows blood within the pericardium due to dissection through the root of the aorta into the pericardium.

Aortic dissection is characterized by the longitudinal separation of the aortic wall by circulating blood that has gained access to the media,<sup>1</sup> apparently via an intimal tear.<sup>2</sup> Aortic dissection is the most common catastrophe involving the aorta.<sup>3</sup> It is estimated that 2,000 dissections occur yearly in the United States. Men are affected more often than women, with a peak incidence at 60 years of age.<sup>4</sup> Chest pain, which is usually severe, acute, and maximal at onset, is the most common presenting symptom. When aortic dissection is suspected, the diagnosis must be confirmed quickly. The dissection and its extent must be established so that appropriate therapy can be instituted. If the ascending arch is involved (Stanford type A/DeBakey I and II), the dissection is usually treated surgically, whereas dissections involving only the descending aorta (Stanford type B/DeBakey III) are usually treated medically. Diagnostic accuracy of 88% to 100% has been reported with dynamic CT scanning techniques. These figures are comparable to aortography.<sup>5</sup> Many authors recommend that dynamic contrast-enhanced CT should be the initial study in all cases of suspected aortic dissection.<sup>5</sup> The diagnosis of aortic dissection by CT requires the presence of two or more lumens separated by an intimal flap. Indirect signs seen on CT include dilatation of the aorta, thickening of the aortic wall, and compression and deformity of the true lumen. The presence of pericardial fluid is a poor prognostic sign, suggesting rupture into the pericardial space. This case clearly illustrates the value of contrast-enhanced CT in the diagnosis of aortic dissection.

From the Department of Radiology, Methodist Hospital, Memphis.



**Figure 1.** The intimal flap in the dilated ascending portion of the arch (arrow) is easily seen. The intimal flap (arrowhead) is seen extending into the descending aorta.



**Figure 2.** Blood is layering dependently (arrows) in both pleural cavities. There is also a large amount of blood in the pericardial sac (arrowheads).

ANSWER: (3) Acute aortic dissection.

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# OSHA Bloodborne Pathogens: Final Rule

RUTH M. HAGSTROM, M.D.

The new OSHA Bloodborne Pathogen Standard was published in final form on Dec. 6, 1991 and became effective March 6, 1992 with an Exposure Control Plan required by May 5, 1992. This standard limits occupational exposure to blood and other potentially infectious materials, and covers all employees who could be "reasonably anticipated" to face contact with blood and other potentially infectious materials as the result of performing their job duties. Private physician offices are included.

There has been considerable comment on these matters following publication of an Advance Notice of Proposed Rulemaking on Nov. 27, 1987 and following publication of the Proposed Standard on May 30, 1989. Based on a review of the information in the rulemaking hearings, OSHA has made a determination that employees face a significant health risk as the result of occupational exposure to blood and other potentially infectious materials. Exposure can be minimized or eliminated by using a combination of engineering and work practice controls, personal protective clothing and equipment, training, medical surveillance, hepatitis B vaccination, and other provisions.

The following review is not meant to be comprehensive, and the regulation should be consulted for complete information in meeting legal requirements.<sup>1</sup> There are several new features of this final regulation compared to previous versions. A *written* Exposure Control Plan is called for, with each employer who has an employee with occupational exposure required to establish such a plan. The Exposure Control Plan is to describe tasks, procedures, and job classifications for those who have exposures, along with methods of controlling exposure and postexposure follow-up.

## Methods of Compliance

The regulation's general method of compliance is to be by means of universal precautions along with engineering and work practice controls, and personal protective equipment.

There is a strong emphasis on handwashing and ready availability of handwashing facilities. Gloves are

to be worn when it can be reasonably anticipated that the employee may have hand contact with blood and other potentially infectious materials, and when performing phlebotomy (except for volunteer blood donation centers if the employer judges routine gloving for all phlebotomies unnecessary).

## Hepatitis B Vaccination

Hepatitis B vaccination and postexposure evaluation and follow-up are outlined in detail. The employer is to make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and postexposure evaluation and follow-up to all employees who have had an exposure incident. All of this, including the vaccine, is to be made available at no cost to the employee. Since a large number of exposures for new employees take place in the training period, it is doubly important that vaccination takes place when an employee is first hired. The standard requires vaccination be made available within ten working days of assignment.

## Postexposure Management

Following a report of an exposure incident, the employer is to make immediately available to the exposed employee a confidential medical evaluation and follow-up with the following:

- Documentation of the route and circumstance of exposure.
- The source individual's blood is to be tested for HIV and HBV after consent is obtained. Results of the source sample testing should be made available to the exposed employee.
- The exposed employee's blood is to be collected as soon as feasible and tested after consent is obtained.
- Postexposure prophylaxis, counseling, and evaluation of subsequent reported illness is to be included in the postexposure evaluation and follow-up. Depending on the results of source testing and vaccine status of the employee, hepatitis B vaccine and sometimes hepatitis B immune globulin may be indicated. Zidovudine prophylaxis could be indicated following exposure to a source specimen positive for HIV.
- The employer shall ensure that the health care pro-

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From the Bureau of Health Services, Tennessee Department of Health, Nashville. Dr. Hagstrom is medical director of the Bureau.

professional evaluating an employee after an exposure incident is provided a copy of the OSHA regulation, along with other pertinent information on the circumstances of exposure and testing done.

## Infectious Waste

There is fairly extensive guidance on handling of "regulated waste" within the facility (sharps, waste containers, labeling). However, disposal of such waste is to be in accordance with federal, state, and local regulations. According to Tennessee's requirements, infectious waste is classified as "special waste" and must be rendered noninfectious (incinerating, autoclaving) prior to disposal, or may be disposed of in a specially permitted landfill. There are both limitations and specific requirements associated with any special waste approval for landfill disposal as set forth by the Tennessee Department of Environment and Conservation, Division of Solid Waste Management.

## Training

The requirement on training remains a major part of the standard. All employees with occupational exposure are to receive annual training, and new employees are to be trained at the time of initial assignment to tasks where occupational exposure may take place. Training must include making available the text of the standard and explanation of its contents.

## Recordkeeping

Records for exposed employees must be kept for the duration of employment plus 30 years. The records are to include vaccination status and results of any examination, testing, and follow-up procedures. Training records are to be kept for three years.

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## Vanderbilt Morning Report . . .

(Continued on page 429)

Hyperpigmentation has been reported in as many as 98% of patients in early studies,<sup>10</sup> but is actually a late manifestation of the disease. Other skin manifestations include atrophy, ichthyosis, koilonychia, and loss of body hair.<sup>4</sup> Arthritis occurs in 50% of patients.<sup>4</sup> Radiographic features suggesting hemochromatosis are narrowing of joint spaces with loss of cartilage, cyst formation and osteopenia of metacarpal heads; squared off metacarpal heads; and chondrocalcinosis.

Approximately one-third of patients with untreated hemochromatosis die of heart failure.<sup>4</sup> There is iron deposition in the sarcoplasm of the myocytes.<sup>11</sup>

Liver biopsy with quantification of the hepatic iron content is the basis for the diagnosis of hemochromatosis. The normal concentration of iron in the liver ranges from 40 to 120 µg of iron per 100 mg dry weight.<sup>4</sup> In hemochromatosis, liver iron levels may be elevated 50-fold to 100-fold. Without biopsy, hemochromatosis may be difficult to distinguish from alcoholic cirrhosis with hepatic siderosis. In alcoholic cirrhosis, in contrast to hemochromatosis, the Kupffer cells contain stainable iron. In addition, the level of hepatic iron is lower.

The saturation of transferrin (iron concentration to TIBC) is usually elevated; a cutoff of >55% to 62% saturation has been used in screening tests.<sup>4</sup> A saturation of >70% to 75% is virtually diagnostic. The serum ferritin usually exceeds 200 µg/L in men or 150 µg/L in women, but may be elevated in other forms of liver disease, inflammatory reactions, and tumors. CT and

MRI may prove useful as screening tests.

Treatment of hemochromatosis requires weekly phlebotomy to reduce iron stores to normal.<sup>2</sup> From 10 to 13 gm can be removed per year, with the hematocrit and ferritin used to follow therapy; maintenance phlebotomy is performed four to six times per year.

When patients with hemochromatosis are treated prior to the development of cirrhosis, their survival is identical to that of controls.<sup>2</sup> Survival is decreased in patients with cirrhosis.

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# Out of His League?

J. KELLEY AVERY, M.D.

### Case Report

A 37-year-old farmer arrived at the emergency room (ER) of a smalltown hospital about 6 AM, having been shot in the left leg while deer hunting. There was a previous history of a fracture of both bones of the leg in childhood which had healed uneventfully. On examination of the extremity there was some deformity, instability, and crepitation of the leg about 3 inches below the knee consistent with a fracture. There was a small round wound on the anterior surface of the leg at about the junction of the upper and middle thirds, which appeared to be a wound of entrance. A large gaping exit wound was present on the posterior surface of the calf opposite the small entrance wound and about 2 to 3 inches below the popliteal fossa.

The patient was complaining of severe pain in the leg, and there was active bleeding welling up in the large wound. The blood pressure was 50/0 mm Hg and the pulse was 126/min. While pressure dressings were being applied to the leg, large bore IV lines were established in both arms. The pressure began to improve and on the way to the operating room (OR), x-rays of the leg revealed comminuted fractures of both the tibia and fibula corresponding in position to the bullet wounds.

In the OR the extremity was prepped and draped after endotracheal anesthesia had been started. With the patient on his right side, the wound was explored. There was no recorded examination of the leg prior to anesthesia.

Under anesthesia, both the popliteal artery and vein were found to be severed by the injury. Debridement was accomplished and the artery ends were brought together in a primary anastomosis. The vein was found to be so badly damaged that it was ligated. These vessels were injured about 5 cm below the popliteal fossa. The wound was irrigated with a large amount of sterile saline, and fasciotomies were done in an effort to prevent damage from the postoperative edema. A posterior plaster splint was applied to the extremity to stabilize the fracture after loose closure of the wound.

The patient left the OR about seven hours after arrival in the ER. A nursing note revealed that pulses were heard with a Doppler before moving the patient to the bed, but none afterward. In the next several hours there was some confusion as to whether or not there were pulses in the extremity. At times the Doppler study was said to reveal a pulse and at other times the findings were questionable. Intravenous heparin was begun. At about 3 AM, 20 hours after arrival in the ER, the patient was complaining of more pain and the Doppler study did not reveal a pulse. Neurologic checks during the night revealed decreased sensation in the leg and foot.

Despite these equivocal findings, the surgeon was not called during the night. He was contacted about 8:30 AM and told of the reported blood work and the decreased pulses and

sensation in the involved foot. "Doctor will come to see patient" was documented. He did not come to see the patient until about four hours after this communication. He examined the patient and ordered a left leg venogram. With the report that "deep veins of the calf and thigh cannot be identified," the patient was returned to the OR at 1:30 PM where, again under general anesthesia, clots were removed from the arterial repair and a segment of saphenous vein was used to repair it. Again an unsuccessful attempt was made to repair the popliteal vein.

The only progress note made by the surgeon during this admission was recorded after this procedure. The note was labeled as a "Brief Op Note." He recorded that the preoperative diagnosis was "clotted popliteal artery" and that this was repaired with interposition of a saphenous vein graft. He estimated the blood loss at 1,500 ml and stated that the patient was returned to the ICU in stable condition. There was no note recording the time the patient was returned to the ICU, but at 7:30 PM the nurse's notes recorded that pulses were not found by Doppler and that the doctor was aware. The foot was cool and pale. Throughout the night the patient's condition did not change, and at 3:30 AM the surgeon returned to the hospital and ordered the transfer of his patient to a medical center about an hour's journey away. The transfer occurred almost 48 hours after admission. During this admission the patient received adequate supportive care in the form of blood, fluids, and antibiotics.

At the receiving hospital, under the care of a vascular surgeon and an orthopedist, the popliteal vessels were repaired and the fracture stabilized. A prolonged hospitalization followed, during which it first appeared that an acceptable extremity might be salvaged. Fasciotomies were done, wound care was instituted, skin was grafted to cover the granulations, and the patient was able to return home for a brief time. However, about three months after the initial injury, because of a deep chronic draining wound, it became apparent that amputation above the knee was necessary.

A lawsuit was filed alleging negligence in not making a timely transfer to a vascular surgeon, in ligating instead of repairing the popliteal vein, in using the right saphenous vein to repair the right popliteal artery when the right popliteal vein was compromised, in not identifying and dealing with one segment of damaged popliteal artery, and in failure to do adequate fasciotomies.

### Loss Prevention Comments

In the "retrospective world" of a medical malpractice lawsuit, perception very frequently becomes reality. Of course it is unfair without a thorough examination of the facts to suggest, as the title of this case does, that the surgeon in this case was "out of his league." How does the world do that? By examining the medical record. What does that record suggest to the examiner? Unfortunately, the medical record becomes the legal record in a medical malpractice lawsuit. Any facts that are brought forward by anybody that are not corrob-

Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.



rated by the medical record are suspect.

Here we have a man with an extremely serious gunshot wound involving the leg just below the knee. There was no recorded circulatory examination of the extremity made before the patient was under anesthesia. It was recorded that the hypotension present on admission had been corrected by the intravenous fluids started in the ER. The wound, just on superficial inspection, would have raised the strong suspicion of significant damage to the circulation below the knee. There was some indication of heavy bleeding on admission to the ER, and after pressure dressings were applied, the OR examination revealed that there was some continued bleeding, but the dressings were not described as "soaked." Again, retrospectively, certainly some consideration should have been given to transferring this young man to a facility where a vascular surgeon was available.

This was a 40-bed rural facility where one might perceive that there probably was some lack of the latest technology and that there might well be a shortage of personnel with experience and training in handling such a serious injury. Retrospectively, one would have to raise the question as to whether this was the appropriate place to try to definitively manage this type of injury.

The surgeon was not board certified in surgery. He might have had a world of experience in the management of vascular injuries of this magnitude, but that would have to be questioned. Should he have deferred to a more experienced surgeon in a better equipped facility? The development of this case from a proof standpoint certainly suggested that he should.

The record in this case raised more questions than it answered. Why was there no recorded assessment of the circulation in the leg before the patient was taken to the OR? Why did the surgeon attempt to repair the popliteal artery primarily when this is almost impossible to do even when the vessel is cleanly divided? Why did he attempt the repair on the second operation with the saphenous vein from the same leg when the deep circulation was so severely compromised by the destruction of the popliteal vein? Why did he delay in seeing the patient for almost 12 hours after operation when the nurses were reporting both circulatory and neurologic deficits? Why was it that the only progress note in this patient's chart appeared after the second operation and still contained no substantive information? After the second operation, why did the surgeon delay another ten hours to transfer his patient to a tertiary care facility when the circulation had not been improved and that facility was only one hour away? There proved to be no satisfactory answers to these questions. Expert witnesses were all critical of the care this patient received.

With all of these unanswered questions, we are left with the conclusion that this physician underestimated the injuries to his patient and overestimated his ability to cope with them. We are left to conclude retrospectively that this surgeon was trying to pitch in the majors with a class A arm. It appears that he was truly "out of his league!"

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**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon<sup>®</sup> is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

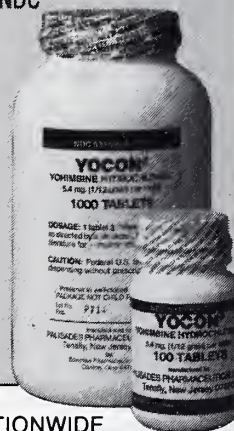
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

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## Unnatural Selection

RONALD J. JOHNSON, M.D.

"This world is a comedy to those that think,  
and a tragedy to those that feel."

—Horace Walpole, 1776

I had a birthday the other day, and that always causes one to think, especially about the past. I was born in 1948, and the calendar on the wall says 2020, making me 72. Back before the turn of the century, people lived to be my age quite commonly, but that's all changed. I took care of myself, because I knew how, being a physician. At least, I used to be a licensed physician, before they took away my papers.

Some say it all started in 1965 with Medicare. That's what put the profit in medicine; it was converted from a cottage industry to a growth one. Since Medicare patients were the right age to need a lot of services, and now there was funding, the expansion was on. Politicians foresaw this and encouraged medical schools to turn out more doctors. One state governor commented "I want a doctor on every corner if necessary to care for the people of this state. Competition will keep the price down." That was before the bureaucrats realized that the physician-patient encounter was the beginning point for the consumption of medical resources.

The labor unions did their part. A good third-party insurance plan was a staple of every contract. Zero deductible and copayment was not the end goal, just a step along the way to enlarging benefits.

Business leaders couldn't face down the unions over benefits, so they sought to cut costs at the other end, hoping the employee/patient wouldn't notice. Hence, the birth of HMOs, PPOs, IPAs and various other forms of "managed care." Physicians had always thought they were the ones managing patients' care until that time. The HMOs oversaw spending carefully. "Elective" surgery rates declined. Years later, statistics were uncovered showing their patients' life expectancy decreased as some of the "unnecessary" surgery turned out to have been "necessary" after all.

The consumer movement played its role in the drama. Consumer advocates (both sincere and otherwise), book publishers, and tabloid television commentators preached that everyone was entitled to a perfect

outcome. Attorneys were quick to exploit this expectation, and profit from it. Malpractice insurance carriers responded with their own burst of growth. What had been a quiet sideline for companies that made their living from life and casualty business suddenly became a new "cash cow." Dire predictions of future calamity justified huge premium increases. Economic downturns produced lower investment income and yielded still further premium increases.

In 1990 the first collapse of a major third-party payor heralded the next disaster. More Blue Cross and Blue Shield companies followed, and just as the savings and loan debacle strained federal resources, the loss of personal health insurance for millions had to be met with government action. Medicare and Medicaid programs were already underfunded, so first they declared that physicians had to continue to care for the patients and let the accounts be carried until arrangements could be made. The next step was easy: laws were passed "forgiving" the Blues' debts to doctors. (After all, physicians have always given a certain amount of free care. The argument that this time it was not a gift to patients but to insurance company executives and stockholders was ignored.)

Many physicians who were financially able retired at this point. Caring for patients was hard enough; getting paid for it was even harder. Some who remained tried to opt out of the system by dealing directly with patients for payments, refusing all insurance plans. This angered many patients and increased malpractice suits yet again. Premiums on malpractice insurance skyrocketed, leading to still more early retirements and further decreased access to medical care.

The extension of DRGs to outpatient care was the final straw for hospitals. The efficient ones survived until this point. But some source of cash flow had to be left to them, since they were forced to care for even persons left out of all coverage for loss-benefit reasons (the Oregon Plan). Now there was none, and hundreds closed their doors.

A physician oversupply existed in the early 1990s, but by the year 2000, contrary to previous predictions, there was a shortage. Even relaxed immigration laws failed to fill the gap. No physician had any reason to

Reprint requests to 6027 Walnut Grove Road, Suite 216, Memphis, TN 38120 (Dr. Johnson).



want to practice under such conditions. The hard reality was that anyone motivated enough to pursue the long, expensive training programs was also intelligent enough to see that it wasn't worth it any more. Federal and state lawmakers rose to the occasion and established tuition-free medical schools. Of course, this was followed shortly by nationalization of the health care industry, complete with a universal withholding tax from wage-earners, patterned after FICA. Since no cost to the patient was required at time of treatment, demand rose. Long lines developed.

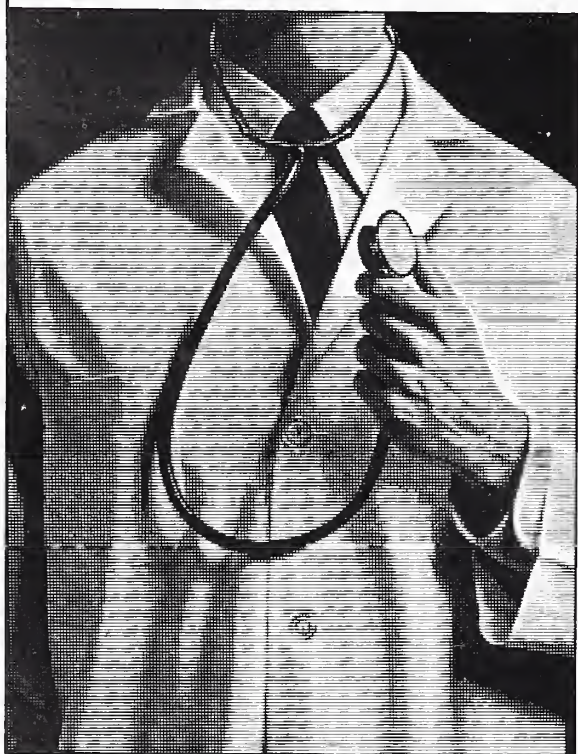
For a few years those who could afford to do so opted out of the system and chose private physicians and hospitals, whom they paid out-of-pocket for their services. Since they were usually healthier patients and they were paying their withholding health insurance contribution anyway, no one minded at first.

Then someone pointed out that this had created two classes of health care. And anyone could see that those with private care fared better than those with National Care. Forget that they were the healthier ones anyway. It was impossible to make unhealthy people healthy by law, of course. (This had been proven when AIDS victims were declared disabled, rather than ill with a communicable disease, thwarting the efforts of public health officials to control dangerous habits.) So the only choice was to outlaw private health care. Medical licenses were rescinded for all physicians who were not

full-time employees of National Care. Penalties were increased for practicing without a license. That's when they took my license. I stuck it out through the whole mess with establishing National Care. But I made a mistake. I had hoarded some medications from my private practice days in my home. Then one day a friend came over with his grandchild who had an earache. The line at the child's assigned National Care Clinic was over 300 patients long that day. I examined the child using my old otoscope from medical school, made the diagnosis, and decided what to do. I reconstituted some of the powdered antibiotic from my supply, right in my own kitchen. Everything would have been fine except that a day-care worker saw the unauthorized bottle of medicine in the child's diaper bag and started the investigation. Since I had not charged the patient for my services, I only received a suspended sentence, and permanent revocation of my license.

Do I regret doing it? No. It was probably time for me to quit anyway. They didn't find all my stash of medicine, at least. So my family is healthier than most. (A lot of physicians have done the same thing, most just haven't made the mistake of sharing with the public.) I weep sometimes, for what the American people have lost. We had an imperfect system, as all systems made by men will always be. But instead of fine-tuning it to make it better, we junked it, and built a worse one.

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CHARLES ED ALLEN

## *Old Foe, Renewed Fury*

Tuberculosis is a disease of antiquity whose clinical presentation was described by Hippocrates. Its archaic name was consumption, a term that is aptly descriptive of the ravages of the illness.

When I first encountered clinical medicine as a junior medical student almost 40 years ago, tuberculosis was prevalent. The Tennessee Department of Public Health maintained three "TB" hospitals, located in Knoxville, Nashville, and Memphis. The diagnosis was frequently made both in the clinic and in the hospital. Miliary tuberculosis was not uncommon. As an intern I encountered my first and only case of tuberculous pneumonia. Even then the incidence of tuberculosis was in rapid decline due to improved hygiene, public health case-finding, and drug therapy. Shortly thereafter, all three tuberculosis hospitals were deemed no longer needed and were closed.

A report of the Board of Trustees of the American Medical Association presented at the AMA annual meeting in Chicago in June 1992 summarized some recent and alarming information about tuberculosis. In the United States, the incidence of the disease decreased steadily from 1953 to 1985. From 1985 to 1990, the incidence increased by 15.8%. Throughout the world, tuberculosis is the most common cause of death due to infectious disease, with an estimated 8 million new cases and 3 million deaths each year.

Much of the resurgence of tuberculosis is related to immunosuppression associated with HIV infection. Other populations with increased susceptibility include the homeless, alcoholics, prison inmates, nursing home residents, and certain racial groups. Health care workers are at risk due to exposure to infected patients.

A frightening aspect of our old adversary is development of tubercle bacilli resistant to multiple drugs. Several outbreaks of such infections have been reported across the United States. Culture and drug resistance studies are time-consuming, causing delay in institution of appropriate therapy. To further complicate matters, no new antituberculous drugs have been released in over 20 years and some drugs have been in short supply.

Complacency has no place in management of tuberculosis. A high index of suspicion, appropriate diagnostic procedures, effective isolation and hygiene, indicated drug treatment, and thorough contact investigation are not new but still are valid principles.

Although our advances in immunization and drug treatment of infectious diseases have been almost miraculous, this new onslaught of tuberculosis forcefully reminds us that mankind's old enemy is still very much alive.

*Charles E. Allen, M.D.*

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**SEPTEMBER, 1992**

One of the chief roles of the doctor has been as an advocate for his patients, and since patients are now cast in the role of consumers of health care, in that sense doctors are consumer advocates. In that scenario, though, the doctor becomes a provider, and so his patients need an advocate to protect them from him—or her, as the case may be. Enter HCFA. Now HCFA stands for Health Care Financing Administration, so you can see what that is an advocacy for. Both the patient and his doctor are generally the loser whenever the feds get their hand into whatever it is they get their hand into—anything at all. But I find I am digressing into a whole 'nother subject, and so I'll knock it off and be about the business at hand.

The House of Delegates is the policy-setting body of the American Medical Association (AMA). The arm of the House that advises it on policy-making is its councils, and the one that advises it on matters of medical education is, appropriately, the Council on Medical Education.

For close to 20 years now I have in one capacity or another been sitting in on the hearings of Reference Committee C, which considers and makes recommendations on items of business having to do with education. As one might expect, one finds attendance at those hearings top-heavy with deans, directors of continuing medical education (CME), and assorted other faculty members, and so, not surprisingly, since that is where there is maximum exposure to other delegates, one finds the Council on Medical Education also top-heavy with deans and so on. Now, those folks are suppliers of education, and in this case the physicians are the consumers, or however you wish to term us. Though some of them appear not to think so, we consumers sometimes do need an advocate in the hallowed halls of learning. In recognition of that, and taking note of the Council's plethora of deans, the AMA's bylaws require that there be at least one member of the Council who does not hold a salaried position in a medical school.

This year the House elected two Tennesseans to the Council—a dean and a physician advocate in the private practice of medicine. Charles E. Allen, M.D., generally known as Ed, is president of the Tennessee Medical Association and a practicing internist from Johnson City. He has in addition an impressive background in medical education, singularly fitting him for a position on the Council. One of the prime movers in the formation of the James H. Quillen College of Medicine of East Tennessee State University, he has been at one time or another both chairman of the Department of Medicine and dean of the Medical School. Since leaving the full-time faculty he has

## **editorials**

### **Congratulations, Ed and John**

Consumer advocacy is a sometime thing, and sometimes it takes form in ways that make at least some consumers, me for instance, wish it would become even more of a sometime thing and just go away. Some self-appointed consumer advocates, such as Ralph Nader, for instance, can be a little much.



maintained his interest in teaching as a clinical professor, and has further shown his interest in students as chairman of the TMA's Student Education Fund. In the race for a spot on the Council, Ed proved himself an effective campaigner, with quiet, unassuming confidence fielding questions on a variety of education issues thrown at him by delegates in the various caucuses.

Having been pleased and impressed with his contributions to the Council's deliberations over the past three years, the House returned John Chapman, M.D., dean of the Vanderbilt University School of Medicine, to the Council for his second three-year term. There were no surprises there.

Doctors Allen and Chapman have brought honor to their state, and their considerable talents and expertise to the House of Medicine. Thus it is that we the delegates are ourselves also to be congratulated for having had the wit to recognize their ability and elect them to office. The *Journal* is pleased, therefore, to join in the offering of congratulations to all concerned, but particularly to Ed and John.

J.B.T.

## Me Driving? I Thought You Were—Or Vice Versa

Appearances can be deceiving, and things may not always be what they seem. This is not always by accident, either, and in fact appearances may be deliberately distorted so as to manipulate perceptions. Take the American Medical Association (AMA), for instance. The House of Delegates is, at least in theory, the policy-making body of that organization. Nevertheless, careful examination will generally conjure up at least some, if not even sometimes considerable, doubt as to just who is actually driving that car. Not infrequently that function seems to reside in the Board of Trustees, and at least as often in its own resident bureaucracy, the staff, vehement disclaimers to the contrary notwithstanding. Sometimes that is due to the nature of the system itself, and is therefore unavoidable. Sometimes it is due to negligence on the part of the House, and therefore isn't. Some of it defies categorization.

One need only look at the federal government to discover why the Association functions, or sometimes fails to properly function, the way it does. The

bureaucracy (known euphemistically in the AMA and down the federation chain as "staff," but you know the old saying about a rose by any other name. . . .) is on board all the time, and is ready to react at a moment's notice; they had better be, because that is what they get paid to do. The Board of Trustees is always "on call" for emergencies, though staff generally defines the emergencies. Some Board member is always, at least theoretically, overseeing every part of the operation. To be sure, under the less autocratic "front office" that the AMA now has as a result of some derelictions of the more autocratic previous one, which got itself into trouble by being arbitrary, the tail has become slightly less likely to wag the dog, but by the very nature of its charge only slightly so.

The Board of Trustees meets six or more times a year; their agenda is horrendous. Its eyes and ears are the staff, and its brain the councils, with their various advisory bodies, and of course staff, some part of which is assigned to do the leg work for each of the councils. The councils meet four or five times a year, and their agenda is also always horrendous. To get the work done, they, like the Board, often employ subcommittees, which also have staff assigned them. In the end, the reports are written by staff, and *somebody* from the various committees and councils, and from the Board, has read and supposedly thoroughly digested what staff has written, but not everybody; I sometimes get the feeling not anybody. No more does the House, which meets only (*only?*) twice a year; its agenda consumes a lot of trees each time. It is alleged that there are also some delegates who read the whole thing, but if they do they either don't practice medicine, don't sleep, or don't have any family life, or all of the above. Either that or they lie.

Certainly none of this is written to belittle the staff, or to denigrate its contributions to the running of the AMA. As a former chairman of one of the councils and also of one of the advisory committees, I have only extravagant praise for the staff and the greatest appreciation for its contributions. At the same time, no one understands more clearly the opportunity staff has to inject its own agenda into the proceedings of every committee and council, and even the Board, not to mention the House itself. Anyone who has been in the House very long can recall instances where items the House considered most urgent have been largely ignored upstairs. Sometimes this is due to staff inertia, deliberate or otherwise, and sometimes to the opinion of the Board that the House erred in its decision. Anyone who has watched the AMA function knows that for the will of the House to be implemented over the objection of



the Board is next to impossible, despite assurances by the Board that it always does the best it can. In addition, council reports are not always written to reflect what the council members remember as having been decided in the meeting, granting that memory can sometimes play its owner false.

In addition to selective inaction and/or creative interpretation of House actions by Board and staff, there is sometimes a reluctance of sorts on the part of the House to bring up some of the issues affecting the particular item under discussion. This is particularly true when the hour is late and discussion has been interminable, and even more so if there is apt to be an exchange of pleasantries that might wound some colleague's delicate sensibilities, especially if the two of them are likely to be facing each other bending elbows over a cup of something or other in a little bit. A delegate who has arisen to discuss some salient point may by the time it is his turn to speak have become so disenchanted with the whole affair that he simply moves to close debate and vote immediately, thereby ending the discussion and leaving his stone unturned, his wisdom withheld from the House.

Unless the House changes its mind, what John Chapman was just elected to will possibly be not only his second three-year term on the Council on Medical Education, but his last one as well. I say possibly, because a lot of the mechanics effecting what the House did have yet to be worked out, and any change may not affect already seated council members. In any case, after considerable debate, which terminated before it should have, the House elected to limit the tenure of council and committee members to two three-year terms, on the grounds that such will increase the opportunity for participation by more members of the House, as of course it will. But let me say this about that. There is a downside to the scheme that went largely ignored, and I expect the House to rue the day it approved the report. Two very important pertinent items were left unconsidered, at least on the floor of the House, and I did not see by its report, which the House adopted, that the Council on Long Range Planning considered them either.

It takes most of the first two years of council membership for the delegate-member to become effective. The third year is taken up with campaigning for reelection, so that so far as the annual meeting that year is concerned, the member has little time to spend taking care of council business. It is important that the council have the opportunity to evaluate its members so as to arrive at a proper succession of chairmen; this is for the most part customarily done

in the member's second term. While the six-year rule will indeed increase participation, it will not do so by much, and you can take it from a former council member and chairman that it will do it at the expense of proper functioning of the council by wreaking havoc with the establishment of seniority within the council, thus rendering both the council and its members much less effective.

The second item, which is really a corollary of the first, is that whenever there is a vacuum, staff is there to take up the slack. Since the six-year rule will unquestionably create a vacuum, the role of staff in influencing the deliberations of the councils will be greatly magnified, and the staff will figure even more prominently than ever in the running of the Association. Perhaps you do not see this as a problem, and perhaps, looking at it pragmatically, it isn't; perhaps I have exaggerated it here. Certainly the staff is a dedicated group of capable individuals, most if not all of whom have the best interests of the profession and the Association at heart. Nevertheless, not being in the front lines in the practice of medicine, their viewpoint is bound to be a little skewed. To maintain proper perspective, maximum physician input is absolutely necessary. The Board of Trustees is of some help, but it is a body of pragmatists, who view their (our) problems from the practical instead of from the ideal. Where governmental relations are concerned, their first consideration is whether or not the proposal adopted by the House will fly, and not to try and make it fly simply because the House said to. It is a not illogical stance, since they and staff are the ones who have to butt heads with the folks in government; nevertheless, the Association sometimes fails to accomplish all it might for medicine were it to press full steam ahead toward the ideal instead of always trying to accommodate its efforts toward what it views as "doable." If they wonder why it is that the AMA is not widely viewed as the voice of medicine, that is why. The voice of the House usually is; what comes out of it frequently is not. That results in a lot of disaffection in the ranks.

Unfortunately, such things are seldom voiced, and almost never on the floor of the House. Voicing such opinions requires that the speaker have no further ambitions in the Association. Those of us who have reached that station in life, generally by virtue of age and years in service, are seldom wont to make such views known, being overcome more likely than not by torpor, and, having had our tools repeatedly blunted, driven by the urge to get the proceedings over with as quickly and as painlessly as possible before it happens again.

J.B.T.





*Edwin Earl Gray Jr.*, age 66. Died July 5, 1992. Graduate of University of Tennessee College of Medicine. Member of Coffee County Medical Society.

*Seung Hoo Lee*, age 55. Died June 26, 1992. Graduate of Severance Medical College Yonsei University, Seoul. Member of Henry County Medical Society.

*Thomas Preston McKee*, age 84. Died June 22, 1992. Graduate of University of Virginia School of Medicine. Member of Washington-Unicoi-Johnson County Medical Association.

*William Forrest Powell*, age 74. Died July 10, 1992. Graduate of Medical College of Georgia School of Medicine. Member of Knoxville Academy of Medicine.

*John M. Wilson II*, age 78. Died June 22, 1992. Graduate of University of Pittsburgh School of Medicine. Member of Washington-Unicoi-Johnson County Medical Association.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

*George Edgar Anderson Jr., M.D.*, Chattanooga  
*Donald P. Hetzel, M.D.*, Chattanooga  
*Kavin J. Johnson, M.D.*, Chattanooga  
*James K. Metcalfe, M.D.*, Chattanooga  
*Mark S. Sumida, M.D.*, Chattanooga

### COFFEE COUNTY MEDICAL SOCIETY

*Susan B. Harlow, M.D.*, Estill Springs

### CUMBERLAND COUNTY MEDICAL SOCIETY

*Mark K. Lee, M.D.*, Crossville

### LINCOLN COUNTY MEDICAL SOCIETY

*Earl M. Jeffres, M.D.*, Fayetteville

### NASHVILLE ACADEMY OF MEDICINE

*Brian Lee Berger, M.D.*, Nashville  
*David L. Cross, M.D.*, Nashville  
*Mark Dudley Flora, M.D.*, Nashville  
*Drew A. Kreegel, M.D.*, Nashville

### RUTHERFORD COUNTY/STONES RIVER ACADEMY OF MEDICINE

*Andrew John Hazley, M.D.*, Murfreesboro

### SULLIVAN COUNTY MEDICAL SOCIETY

*Thomas E. Mitoraj, M.D.*, Bristol  
*J. Patrick Rash, M.D.*, Kingsport

### WASHINGTON-UNICOI-JOHNSON COUNTY MEDICAL ASSOCIATION

*J. Kenneth Herd, M.D.*, Johnson City

### WILLIAMSON COUNTY MEDICAL SOCIETY

*Katherine Anne Dykes, M.D.*, Franklin

### WILSON COUNTY MEDICAL SOCIETY

*Charles M. Gill, M.D.*, Lebanon

## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during June 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

*Clyde V. Alexander, M.D.*, Jackson  
*James A. Bookman, M.D.*, Madison  
*Charles R. Brite, M.D.*, Murfreesboro  
*Robert P. Christopher, M.D.*, Memphis  
*David N. Collins, M.D.*, Chattanooga  
*Raymond J. Colom, M.D.*, Portland  
*Mary S. David, M.D.*, Dyersburg  
*Paul E. Dedick, M.D.*, Lebanon  
*Douglas R. Dorsey, M.D.*, Nashville  
*Robert W. Dunavant, M.D.*, Bolivar  
*Anthony J. Fava, M.D.*, Dyersburg  
*Gerald M. Fenichel, M.D.*, Nashville  
*Thomas C. Gettelfinger, M.D.*, Memphis  
*Michael H. Gold, M.D.*, Nashville  
*Ralph C. Goodman, M.D.*, Memphis  
*Helen A.V. Goswitz, M.D.*, Oak Ridge  
*Joel T. Hargrove, M.D.*, Columbia  
*Benjamin W. Johnson Jr., M.D.*, Nashville  
*Bruce E. Jones, M.D.*, Nashville  
*Ronald C. Kelly, M.D.*, Bristol  
*Ling H. Lee, M.D.*, Memphis  
*Frank H. Lowry, M.D.*, Madisonville  
*Horace N. Noe, M.D.*, Memphis  
*Kevin M. O'Brien, M.D.*, Nashville  
*John G. Pearson, M.D.*, Murfreesboro  
*Joel Q. Peavyhouse, M.D.*, Kingsport  
*John L. Sawyers, M.D.*, Nashville  
*John V. Snodgrass, M.D.*, Rockwood  
*Charles W. Stratton, M.D.*, Nashville  
*Anita J. Thomas, M.D.*, Chattanooga  
*Lois Wagstrom, M.D.*, Nashville  
*Francis H. Wright, M.D.*, Nashville  
*Jean A. Young, M.D.*, Memphis

# announcements

## CALENDAR OF MEETINGS

### NATIONAL

Oct. 1-4	American Association for Cancer Education—Buffalo, N.Y.
Oct. 8-10	Clinical Orthopaedic Society Inc.—Westin, Denver
Oct. 9-12	American College of Nutrition—San Diego Marriott Mission Valley
Oct. 10-16	American Society of Clinical Pathologists—Las Vegas Hilton
Oct. 10-16	College of American Pathologists—Las Vegas Hilton
Oct. 11-15	American College of Rheumatology—Marriott, Atlanta
Oct. 11-16	American College of Angiology—Sheraton, New Orleans
Oct. 15-17	Association of American Physicians and Surgeons—Airport Radisson, Seattle
Oct. 15-18	American Academy of Family Physicians—Marriott, San Diego
Oct. 17-21	American Society of Anesthesiologists—New Orleans
Oct. 21-25	American Academy of Child and Adolescent Psychiatry—Hilton, Washington, D.C.
Oct. 25-28	Medical Group Management Association—Marriott Orlando World Center
Oct. 26-28	American College of Gastroenterology—Fontainebleau Hilton, Miami Beach
Oct. 26-29	Interstate Postgraduate Medical Association—Riviera, Las Vegas
Oct. 26-30	American College of Occupational and Environmental Medicine—New York Hilton
Oct. 30-31	American Society of Law & Medicine—Royal Sonesta, Boston
Oct. 31-Nov. 5	American Fertility Society—Hilton, New Orleans

Nov. 4-7	American Medical Writers Association—Adam's Mark, Houston
Nov. 4-8	Eye-Bank Association of America—Hyatt, Dallas
Nov. 5-7	Southern Thoracic Surgical Association—Saddlebrook, Wesley Chapel, Fla.
Nov. 6-12	Association of American Medical Colleges—Hilton, New Orleans
Nov. 9-13	American Society for Therapeutic Radiology and Oncology—Convention Center, San Diego
Nov. 10-14	American Cancer Society—Marriott Marquis, Atlanta
Nov. 11	Southern Association for Geriatric Medicine—Marriott Rivercenter, San Antonio
Nov. 11-16	Association of Clinical Scientists—Fess Parker's Resort, Santa Barbara, Calif.
Nov. 12-15	Southern Medical Association—Marriott Rivercenter, San Antonio
Nov. 13-17	American Academy of Physical Medicine and Rehabilitation—Hilton, San Francisco
Nov. 13-17	American Congress of Rehabilitation Medicine—Hilton, San Francisco
Nov. 14-18	American College of Allergy and Immunology—Hyatt Regency, Chicago
Nov. 14-18	American Geriatrics Society—Hilton and Towers, Washington, D.C.
Nov. 19-22	National Perinatal Association—Buena Vista Palace, Orlando
Nov. 27-Dec. 4	Radiological Society of North America—McCormick Place, Chicago
Nov. 29-Dec. 4	American Association of Women Radiologists—McCormick Place, Chicago

### STATE

Oct. 22-24	Tennessee Society of Internal Medicine—Gatlinburg Convention Center
Oct. 27-30	Tennessee Academy of Family Physicians, 44th Annual Scientific Assembly—Gatlinburg Convention Center and Holiday Inn, Gatlinburg
Nov. 15-20	Association of Military Surgeons of the United States—Opryland Hotel, Nashville

## Actions of the Tennessee State Board of Medical Examiners

May 1992

### Hearings

**Name: Therial L. Bynum, M.D.** (Murfreesboro)

*Violation:* Gross malpractice; unprofessional, dishonorable, or unethical conduct; fraud or deceit; treating a disease by a secret means.

*Action:* License revoked; assessed civil penalty of \$5,000.

**Name: Everett R. Echols II, M.D.** (Shelbyville)

*Violation:* Gross malpractice; unprofessional, dishonorable, or unethical conduct; making false statements or representations.

*Action:* License suspended for six months; license placed on probation for two years following suspension; must limit practice to psychiatry; assessed civil penalty of \$3,000.

**Name: Sammy M. Smith, M.D.** (Lebanon)

*Violation:* Chemical abuse.

*Action:* Per agreed order, license placed on probation for five years; must enter into contract with TMA's Impaired Physician Program; must submit to unannounced urine drug screens; work must be reviewed monthly by another orthopedic surgeon; must notify administrator at each hospital where he has privileges.

### Order Modifications

**Name: Thomas R. Cox III, M.D.** (Rockwood)

*Violation:* Overprescribing.

*Action:* DEA prescribing restriction lifted.

**Name: Manuel De La Rocha, M.D.** (Farragut)

*Violation:* Overprescribing.

*Action:* Probation lifted.





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# Report of the Committee on Scientific Affairs

OSCAR M. McCALLUM, M.D.  
Chairman

Your Scientific Affairs Committee has experienced a year of significant changes in TMA's program of joint sponsorship of CME since the last meeting of the House of Delegates. The national environment for CME sponsorship has been changing rapidly. Recent proposals by the U.S. Food and Drug Administration to regulate commercial support of CME have had a sobering effect on commercial sponsors of CME throughout the country.

The Accreditation Council for Continuing Medical Education (ACCME) revised its *Guidelines for Commercial Support of CME* early last year. Your committee has made provisions for compliance with these guidelines through the process TMA now uses for joint sponsorship of CME activities with nonaccredited organizations. Information on commercial support of those CME activities held during this annual meeting that TMA has jointly sponsored is contained in the Annual Meeting Program Addendum, available at the TMA registration desk.

In July 1991 TMA published and distributed to all state chapters of medical specialty societies TMA's *Annual Meeting Policy/Guidelines* and *Policy and Procedures for Joint Sponsorship of Continuing Medical Education Activities*. We have also established separate letters of agreement for annual meeting planning and joint sponsorship of CME. Any organization desiring to conduct a meeting in conjunction with TMA's annual meeting must have a signed Annual Meeting Letter of Agreement on file with TMA.

Your committee has regretfully denied a few requests for TMA joint sponsorship of CME activities. These decisions were all made due to the requesting organizations' failure to comply with TMA's policy and procedures. The committee strongly encourages representatives of any organization desiring TMA's joint sponsorship of CME to thoroughly review TMA's *Policy and Procedures for Joint Sponsorship of Continuing Medical Education Activities*. A member of TMA's Scientific Affairs Committee must be assigned to an orga-

nization as TMA's CME activity coordinator *before* planning for a CME activity begins.

With significantly increased work and responsibilities, the five physician members of the committee have been very busy. In January of this year, the TMA Board of Trustees appointed five physicians as consultants to the committee. We are very pleased to have these physicians join the work of the committee: Tracy Doering, M.D. (Nashville), Daniel S. Ely, M.D. (Knoxville), Hyman M. Kaplan, M.D. (Chattanooga), Ronald D. Lawson, M.D. (Memphis), and Alvin H. Mayer Jr., M.D. (Donelson).

The TMA Board of Trustees approved (at its July 13, 1991 meeting) the Annual Meeting Committee's recommendation to eliminate the previous requirement for a physician representative to be present at the September meeting of the Scientific Affairs Committee. This change has made it more convenient for some medical specialty society representatives. Your committee is concerned, however, that a record number of schedule/program changes this year may stem from our attempt to communicate all annual meeting policy and procedures by mail. We will make recommendations for TMA's annual meeting policy to the Annual Meeting Committee of the Board of Trustees prior to their July 1992 meeting.

The committee is pleased to announce TMA's sponsorship of an independent study CME activity based on the text *Risk Prevention Skills*. TMA has established a contract with the publisher of this text, Tennenhouse Professional Publications, Inc. of San Rafael, Cal., to market and distribute TMA's CME activity packages on a nationwide basis. The activity is titled "Developing Risk Prevention Skills: An Independent Study CME Activity for Physicians." TMA's registration fee for this activity is \$25. The first use of this CME activity is being made through the Western Ohio Health Care Plan, with 250 participating physicians. Janssen Pharmaceutica is the first commercial sponsor of this activity.

In addition to those CME activities conducted at TMA's annual meeting, your committee also approved joint sponsorship of the following: (1) 1991 SVMIC

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This report was submitted to the Tennessee Medical Association House of Delegates, April 9, 1992, Nashville.



Loss Prevention Program—each session designated for two hours of credit in Category 1 of the AMA-PRA; (2) 1991 SVMIC High-Risk Obstetrics Seminar—each session designated for three hours credit in Category 1 of the AMA-PRA; (3) 1991 SVMIC Loss Prevention Seminar for Radiologists; (4) TN Pediatric Society-Fall Meeting—Sept. 12-14, 1991, Chattanooga.

Your committee has also reviewed several inquiries received by TMA related to joint sponsorship of CME. These inquiries have been from the following: (1) Southern Pain Society; (2) Northside Hospital—Johnson City; (3) Miles, Inc. (Pharmaceutical Division); (4) Sandoz Pharmaceuticals Corporation; (5) American Cancer Society, Tennessee Division, Inc.; and (6) National Biotherapy Study Group.

#### Committee Members

Sidney L. Bicknell, M.D., Jackson  
Winston P. Caine Jr., M.D., Chattanooga  
Francis W. Gluck Jr., M.D., Nashville  
Hal S. Stubbs, M.D., Bristol  
John B. Thomison, M.D., Nashville

(Editor's Note: Since this committee report was presented to the TMA House of Delegates, the ACCME Guidelines for Commercial Support of CME have been revised and expanded. The new policy is now titled *Standards for Commercial Support of CME*. The new standards have the same force and effect as the *Essentials and Guidelines for Accreditation of Sponsors of CME*.)

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### AMA Lobbying Halts Medical Waste Proposal

Due to Federation grass roots contacts and American Medical Association lobbying, Rep. Rinaldo [R-NJ] did not offer his amendment to the House Resource Conservation and Recovery Act [RCRA] reauthorization bill.

Rinaldo's draft amendment would have

imposed increased regulation of the treatment, handling, disposal, and hauling of medical waste. Rep. Rinaldo and other House Energy and Commerce Committee cited physician and medical society contacts as the reason for not proceeding with medical waste amendments.

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### HCFA Follows AMA's Suggestion for PRO Reform

The Health Care Financing Administration is drafting proposals to reform the Medicare Peer Review Organization in ways that the AMA has long advocated.

The proposal, called the Fourth Scope of Work, outlines requirements that the nation's 53 PROs must undertake beginning April 1, 1993. The current

draft suggests redirecting peer review efforts away from spotting individual clinical errors. Instead, PROs would analyze patterns of care and share analyses with physicians, hospitals, medical staff and state medical associations.

HCFA expects to complete the proposal late this summer.

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### AMA Provides HCFA with RBRVS Update Recommendations

The American Medical Association has established a process for developing relative values for new or revised codes in the *Current Procedural Terminology*.

The AMA/Specialty Society Relative Value Scale Update Committee, or RUC for short, will provide recommendations for HCFA to use in

updating the new Medicare resource-based relative value scale physician payment schedule. RUC is composed of physician representatives from the AMA, 22 medical specialties, American Osteopathic Assn. and the CPT editorial panel. RUC will hold three or four meetings in 1992 and 1993 to prepare for the 1994 CPT.

TMA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) as a sponsor of continuing medical education for physicians. Nonaccredited organizations may request TMA's joint sponsorship of CME activities. As an accredited sponsor, TMA is authorized to designate certain CME activities for credit in the AMA Physician's Recognition Award Program.

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

### VANDERBILT UNIVERSITY MEDICAL CENTER

#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Oct. 1-3	Lasers in Otolaryngology: Head and Neck Surgery
Oct. 9-10	Laryngeal Video Endostroboscopy Workshop
Oct. 16-17	Gynecologic Surgery Workshop in Pelviscopy, LLETZ, and Laser
Oct. 20	3rd Annual Neonatology Conference
Oct. 22-24	Vanderbilt Medical Alumni Association's (First Biennial) Reunion 1992
Nov. 7-8	2nd Annual Symposium on Color Doppler Sonography—Atlanta
Dec. 3-5	Lasers in Otolaryngology: Head and Neck Surgery
Dec. 11-12	18th Annual High Risk Obstetrics Seminar
Jan. 31-Feb. 5	Practical Aspects of Diagnostic Radiology/Medical Imaging VI—Snowmass Village, Colo.

Feb. 28-Mar. 5 Infectious Diseases—Snowmass Village, Colo.

March 1-2 Vanderbilt/Tennessee Annual Perinatal/Neonatal Meeting

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

### MEHARRY MEDICAL COLLEGE

#### Conferences

Oct. 5-6 Targeting Needs of the Underserved: The Urgency of Health Care Reform

For information contact Institute on Health Care for the Poor and Underserved, Tel. (615) 327-6279.

Oct. 21 5th Annual Charles W. Johnson Sr., M.D. Symposium: Current Status of AIDS Research and Health Care.

For information contact Sylvia Wright, School of Graduate Studies and Research, Tel. (615) 327-6199.

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

Oct. 8-9	Group Psychotherapy
Oct. 16	Addiction Medicine Program
Oct. 23-24	Laparoscopic Hysterectomy: Hands-On Training Workshop
Oct. 24	Gynecologic Oncology Seminar
Nov. 9-13	Advances in Medicine—Bermuda
Nov. 12	Update: Preventive Strategies in Patient Care
Nov. 12-13	College of Medicine Alumni Weekend
Nov. 19-21	Society for Human Ethics and Values
Nov. 20-22	11th Annual Gynecologic Surgery Seminar
Dec. 4-5	Laparoscopic Hysterectomy: Hands-On Training Workshop



- Jan. 15-16 Laparoscopic Hysterectomy: Hands-On Training Workshop  
 Feb. 8-11 Update in Obstetrics and Gynecology—Grand Cayman Island  
 Feb. 14-19 Clinical Medicine—Kauai, Hawaii  
 Feb. 19-20 Laparoscopic Hysterectomy: Hands-On Training Workshop  
 Feb. 20-21 Radiology Conference  
 Feb. 25-27 Seating the Disabled  
 March 6-13 Surgical Gynecology and Obstetrics—Steamboat Springs, Colo.  
 March 13-19 26th Annual Review Course for the Family Physician  
 April 1-3 Symposium on Critical Care & Emergency Medicine—Hot Springs, Ark.  
 April 1-3 Southern Society for Research in Psychiatry

#### Chattanooga

- Oct. 1-2 Care of the Aging Patient  
 Oct. 22-23 Critical Care Medicine  
 Nov. 20-21 Internal Medicine Update

#### Knoxville

- Oct. 1-3 15th Cancer Concepts Course—Gatlinburg  
 Oct. 5-7 Advanced Cardiac Life Support Providers Course  
 Oct. 26-28 12th Annual Smoky Mountains Seminar in Obstetrics and Gynecology—Gatlinburg

- Nov. 6-8 14th Annual Otolaryngology Course for Primary Care Physicians—Gatlinburg  
 Nov. 19-20 9th Annual Alzheimer's Disease Symposium—Gatlinburg

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

## IN SURROUNDING STATES

### WASHINGTON UNIVERSITY—MISSOURI

- Oct. 2-3 Update in Ophthalmology  
 Oct. 15 Smoking Cessation in the Primary Care Practice  
 Oct. 16-17 Repetitive Injuries in the Workplace  
 Oct. 31 Pediatric Immunology and Rheumatology for the Practitioner  
 Nov. 5-8 ISACB 3rd Biennial Meeting: Toward Application of Advances in Basic Cardiovascular Biology  
 Dec. 5 Management of Hypercholesterolemia  
 Dec. 12 Hypertension

For information contact Cathy Caruso, Office of CME, Washington University School of Medicine, Box 8063, St. Louis, MO 63110, Tel. (800) 325-9862.

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**Kenneth Cooper, M.D.** - credited with fathering a fitness revolution. National aerobics center; Dallas, Texas.

**John McDougall, M.D.** - Author and leader in the movement for lifestyle changes that control or cure diseases, Southern California.

**Richard Neil, M.D.** - Authority in the field of lifestyle medicine and stress management, Relinco Seminars, California.

Information is available through Jane Sines, (615) 396-2748. They will be happy to send a brochure with all subjects, dates and CEU information.

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# *Thoracoscopic Lobectomy*

DAVID G. STANLEY, M.D.

## **Introduction**

Diagnostic thoracoscopy is a well-known procedure that has been used with increasing frequency by thoracic surgeons. Jacobaeus<sup>1</sup> first introduced pleuroscopy in 1920 as a diagnostic procedure. It was used to assist in pulmonary collapse therapy for tuberculosis. With the arrival of effective antitubercular drugs, the procedure lost its usefulness. This author and other surgeons have occasionally used the rigid bronchoscope or the Carlen's mediastinoscope to explore the thorax and diagnose pleural tumors, effusions, or metastatic intrathoracic cancers.<sup>2</sup>

Recently, technical improvements in laparoscopy have stimulated thoracic surgeons to use videothoracoscopy for therapeutic as well as diagnostic procedures.<sup>3-6</sup> Following is a case report of our first videothoroscopic lobectomy.

## **Case Report**

A 47-year-old white male automobile service manager was referred to the office on Jan. 16, 1992, with a 1.5-cm coin lesion deep in the right middle lobe. The coin lesion was found incidentally after the patient was admitted to the hospital through the emergency room with a perirectal abscess. Following recovery from the abscess, CT scan revealed a suspicious noncalcified coin lesion.

The patient had a possible history of angina pectoris, nine to ten years earlier. He stated that he "flunked" a treadmill test and was treated for several months with antianginal medications. The follow-up treadmill test was normal. The patient was a two-pack-per-day smoker and he consumed approximately six beers per day.

Physical examination revealed a healthy-appearing, 250-lb, middle-aged man with a blood pressure of 136/100 mm Hg, pulse 88/min, and respirations 20/min. There was no supraclavicular or cervical lymphadenopathy. The lungs were clear to auscultation and percussion, and the heart had a regular rhythm. The abdomen was obese with normal bowel sounds and no tenderness.

Routine laboratory parameters were normal. Chest x-ray confirmed a noncalcified 1.5-cm coin lesion in the right middle lobe. Bronchoscopy revealed a normal tracheobronchial tree. Biopsies taken from the middle lobe were not diagnostic. TB and fungal skin tests were negative. The patient was admitted for resection of the coin lesion and probable middle lobectomy.

On Jan. 29, 1992, videothoracoscopy and middle lobe resection were accomplished by the following technique. A 12-mm trocar was inserted in the third interspace in the midaxilla and the camera placed into the thorax through that port. Twelve-millimeter trocars were also inserted under direct vision through the fifth interspace anteriorly and posteriorly, and the lung carefully evaluated. The fissures were well developed. The middle lobe appeared normal and we could not see a tumor within it. After reevaluating the CT scan and discussing the case with our pulmonologist and radiologist, we elected to proceed with middle lobectomy.

This was accomplished by scissors dissection using cautery for control of bleeding. The lobectomy was completed by using the Endo-GIA stapling device to divide the middle lobe bronchus, pulmonary artery, and pulmonary vein. The specimen was removed by enlarging the axillary incision that was also the camera port to 2 cm in length. The coin lesion was indeed located in the middle lobe and was found to be granulomatous inflammation with focal central caseation. Stains for acid-fast bacilli and fungi were negative.

Postoperatively, the patient had excellent pain control for 24 hours with a morphine PCA pump. He was given ketorolac tromethamine (Toradol IM) for the next 24 hours with good relief of pain. He was transferred from the intensive care unit to the floor on the first postoperative day, and chest tubes were removed the next day. The remaining hospital course was unremarkable. He was discharged on the fourth postoperative day in no distress, with normal GI function and ambulation, and his incisions were healing nicely.

Reprint requests to University Surgeons of Oak Ridge, P.C., 988 Oak Ridge Turnpike, Suite 350, Oak Ridge, TN 37830 (Dr. Stanley).

## THORACOSCOPIC LOBECTOMY/Stanley

The patient was seen in the office on the eighth postoperative day. He stated that he had been visiting his work site, as well as walking about both within and outside his home. Chest x-ray showed the lung to be well expanded and the incisions well healed. The patient returned to normal work activity on the 12th postoperative day.


### Discussion

Over a recent four-month period, I have performed 29 thoracotomies, using videothoracoscopy in 14 patients. These 14 procedures included resection of blebs with pleurodesis (2), pericardial window for pericardial tamponade (1), thoracoscopy with drainage or with diagnostic biopsies (5), wedge resection of coin lesions (2), subtotal segmental resections (3), and lobectomy (1).

Four of the resections were for malignant tumors, including metastatic squamous cell carcinoma (1), metastatic adenocarcinoma of the colon (1), primary adenocarcinoma of lung (1), and primary squamous cell carcinoma (1). The metastatic lesions were removed by wide wedge resection using the Endo-GIA stapling device. The primary cancers were removed by segmental resection. Close inspection for metastatic nodes in these two patients was negative. In three other primary lung cancers diagnosed by

thoracoscopy, I proceeded with open lobectomy or pneumonectomy for more complete resection and staging.

The patient reported in this article had a coin lesion deep within the middle lobe; therefore, lobectomy was more practical than an attempt at wedge resection.

Videothoroscopic resection allows patients with benign coin lesions, metastatic nodules, and selected small (<2 cm) primary cancers to be treated with less morbidity, fewer hospital days, and earlier return to work than is possible with open thoracotomy. As instruments and skills improve, more lobectomies for malignant tumors may be done using minimally invasive surgery; the majority of lung cancers, however, will continue to require open thoracotomy. 

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## HELP FOR IMPAIRED PHYSICIANS

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

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Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.



# *Hypertension Occurring for the First Time Postpartum: Was It Preeclampsia?*

JO ANN ROSENFELD, M.D.

## **Introduction**

Preeclampsia is a hypertensive disease that complicates 7% to 25% of pregnancies, presenting hypertension, proteinuria, and edema. Occurring after 20 weeks' gestation, it can cause significant morbidity and mortality for the woman and her infant.<sup>1</sup> Although termination of the pregnancy is the cure for preeclampsia, complications such as heart failure, renal failure, continued hemolysis and liver failure from the HELLP syndrome, and eclamptic seizures have been reported in severe cases as late as 48 hours postpartum. Seizures occurring as late as 23 days postpartum have been attributed to eclampsia, although there is controversy as to whether any seizure after two days can be considered "eclamptic."<sup>2-7</sup> In seizures occurring after two days postpartum, epilepsy, encephalitis, meningitis, cerebral vein thrombosis, cerebral artery emboli and aneurysm, and other etiologies must be considered. In one study of 254 women who had eclamptic seizures in one hospital over an 18-year period,<sup>5</sup> 36, or 14.2%, had seizures only after delivery. Of the 36 women with only postpartum seizures, 72% occurred first within 48 hours, and 28% after 48 hours. In 17% of the women, seizures were the first indication of preeclampsia/eclampsia. Reports of women experiencing seizures from 3 to 23 days postpartum have investigated other etiologies. In most of these cases the CNS examinations, LP fluid evaluation, EEG, CT scans, and carotid angiograms were all normal. When kidney biopsies were performed in these cases, there were abnormal glomerular lesions identical to those found in eclamptic and preeclamptic patients, suggesting that "late" eclampsia was the cause for these late postpartum seizures.<sup>8</sup> We present a woman with no previous

history of hypertension or preeclampsia who had acute severe hypertension, edema, and proteinuria five days postpartum. This may have been postpartum preeclampsia.

## **Case Report**

A 28-year-old gravida 3 para 2 had a spontaneous vaginal full-term delivery of an 8 lb 2 oz infant at 39 weeks' gestation. During her pregnancy, she had early and complete prenatal care, registering in the first trimester. She had no previous history of hypertension. She had had a cholecystectomy, appendectomy, and two previous full-term vaginal deliveries, each child weighing 8 lb 11 oz at birth. There was no history of preeclampsia or hypertension in previous pregnancies. During her third and present pregnancy, her blood pressure was recorded at from 120/60 to 130/74 mm Hg. She never experienced proteinuria or edema; she gained 19 lb.

She delivered spontaneously under epidural anesthesia, with an estimated blood loss of 250 ml. Blood pressure readings during delivery were from 120/60 to 130/70 mm Hg. Urinalysis during delivery and admission showed no proteinuria. She had only a trace of edema on admission, and no edema at discharge. Having planned to breast feed, she received no bromocriptine. She was discharged from the hospital 48 hours postpartum weighing 15 lb less than her admission, predelivery weight. Blood pressure readings postpartum were normal.

Five days after delivery, she experienced severe headaches and sudden severe pedal edema. Her blood pressure was from 150/102 to 160/112 mm Hg. Her weight was 20 lb greater than her discharge weight. She had 2+ protein in her urine, and 4+ pitting edema to her knees. She had no fever. Cardiovascular and respiratory examinations were normal. Fundi were benign. She was alert with normal CNS examination; reflexes were 2+/4, without clonus.

She was hospitalized, placed at bed rest, and started on magnesium sulfate and hydralazine intravenously. Her creatinine clearance was 144 ml/min; the protein in her urine was 310 mg/24 hr. Electrolytes were normal; creatinine was 0.8 mg/dl. Drug screen was negative, and thyroid function tests were normal. She voided 5.4 liters of urine in 24 hours, and within 36 hours had lost 14 lb (5.0 kg). Her headache resolved, and she had only trace edema in her feet. Her blood pressure on medication was 135/75 mm Hg. She was discharged home on antihypertensive medication with close follow-up.

## **Discussion**


There are few case reports of preeclampsia occurring for the first time in the postpartum period without previous hypertension, except when eclampsia

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## POSTPARTUM HYPERTENSION/Rosenfeld

developed rapidly.<sup>2,3,9</sup> Mild preeclampsia, if it occurs postpartum, may quickly resolve without physician diagnosis or treatment, especially with discharges soon after delivery. Only severe preeclampsia that progresses to severe complications may come to medical attention. In an acute episode of severe hypertension other causes must be considered—essential, malignant, drug-induced hypertension such as that induced by cocaine or bromocriptine, or hyperthyroidism or other endocrinopathy. Since this woman's hypertension appeared just five days after delivery, however, associated with massive edema, weight gain, and proteinuria (if minimal), without other evident causes, and since the hypertension and edema rapidly resolved with bed rest and magnesium sulfate, preeclampsia was likely the cause. Luckily,

this woman had no severe complications. Since sequelae of preeclampsia can be severe and serious, physicians who care for postpartum patients should carefully and directly examine those women who complain of massive edema or headache. 

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# *Non-Hodgkin's Lymphoma in Pregnancy: A Diagnostic Dilemma*

## *Case Report and Review of the Literature*

DORWIN T. MOORE, M.D. and M. MARK TASLIMI, M.D.

### Introduction

Non-Hodgkin's lymphoma (NHL) is a malignant process that can affect multiple organ systems simultaneously or individually.<sup>1</sup> In the past 40 years, reports of NHL in pregnancy have appeared infrequently in world literature and demonstrate the elusive nature and often fatal course of this disease.<sup>2</sup> A review of the present case and of 36 other cases in literature shows a remarkable delay in diagnosis of NHL in pregnancy. Many presenting signs and symptoms were common to pregnancy and to other medical complications in pregnancy that contributed to initial misdiagnoses and delays in the diagnosis of NHL.

### Case Report

A 19-year-old white gravida 1, para 0, presented herself at 38 weeks' gestation to Erlanger Medical Center with a chief complaint of fever, tachypnea, mental status changes, and maculopapular rash. The patient had a six-week history of fatigue, increased somnolence, and episodes of tachypnea. On an earlier admission for "dizziness and tachypnea," arterial blood gases had revealed respiratory alkalosis. The patient had been discharged with the diagnosis of hyperventilation due to either anxiety or an unknown etiology. During the second hospitalization, examination revealed a rectal temperature of 101.4°F, respiratory rate 40/min, pulse rate 140/min, a fine rash on lower extremities, and limited responsiveness during the examination. A ventilation perfusion scan was normal. Peripheral smears revealed leukocytosis and hemoconcentration. Erythrocyte sedimentation rate (ESR) was 36 mm/hr. Bone marrow and cerebrospinal fluid were negative for malignancy. Computed tomography (CT) of the head was positive for the presence of two masses, one in the left parietal area and the other in the left basal ganglia. CT of the chest was normal. The patient had a stereotactic directed brain biopsy, and a cesarean section for breech presentation that yielded a live female infant. Brain biopsy revealed large cleaved cell, intermediate grade, B-cell type malignant lymphoma (NHL). The patient was treated with intrathecal methotrexate (12 mg), intravenous methotrexate (1,480 mg), and leucovorin (20 mg). She is presently without evidence of disease (Table 1, case 30), but the infant succumbed to sudden infant death syndrome (SIDS) at 7 months of age.

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### Discussion

This case demonstrates a deceptive presentation of NHL in pregnancy, leading to delayed diagnosis. Rarity of NHL in pregnancy,<sup>3</sup> infrequent reporting of it in the literature,<sup>2</sup> and a wide variation in symptoms contribute to its elusive nature.

Table 1 summarizes the symptoms, the organ systems involved, and misdiagnosis and delays in diagnosis of NHL in 37 reported cases. There are two cases of musculoskeletal involvement with leg weakness, leg pain, and claudication<sup>4,5</sup>; both cases were due to pelvic masses. One was identified as NHL within one day of admission, and the other after 3.5 weeks. Breast enlargement, discoloration, and nodularity were noted in ten cases,<sup>6-10</sup> six of them painless.<sup>6,7,9</sup> Breast nodularities were biopsied and correctly diagnosed within three to five weeks of presentation in eight patients, while two patients with discolored and enlarged breasts were initially treated with antibiotics for presumed mastitis.<sup>9,10</sup> Three cases involved chest wall or sternal swelling, all of which were correctly diagnosed within two weeks<sup>6,7,11</sup>; one patient had nausea and vomiting; in the second, acute chest pain and dyspnea were the major complaints; and in the third patient a routine chest x-ray revealed a mediastinal mass.<sup>11-13</sup> Lymphadenopathy was present in nine cases involving cervical (2), tonsillar (3), axillary (2), inguinal (1), and both axillary and inguinal nodes (1).<sup>2,4,7,12,14-16</sup> Only four of these patients were properly diagnosed within two weeks. One of two patients with visual involvement resulting in pain, diplopia, and abducens palsy was correctly diagnosed as NHL by cerebrospinal fluid cytology and bone marrow biopsy<sup>17</sup>; the other patient was diagnosed four weeks after initial presentation by a right orbital biopsy.<sup>18</sup> Syncopal episodes, mental confusion with associated fever, and night sweats were found in five cases including the present case report.<sup>14,17,19</sup> The initial diagnoses in those five cases included pregnancy, malaria, dehydration, anxiety, psychosis,

**TABLE 1**  
**ABNORMAL PRESENTATIONS OF NON-HODGKIN'S LYMPHOMA IN PREGNANCY**

Case	Author	Symptoms	Organ System	Days*	Initial Dx
1	Steiner-Salz	35 yo, 32 wks; tumorous enlargement of rt tonsil	Tonsil	1	NHL
2	Steiner-Salz	35 yo, 37 wks; rt axillary node enlarged	Lymphatics	1	NHL
3	Durodola	18 yo, 26 wks; c/o sternal swelling	Breast, mediastinum	1	NHL
4	Benavides	23 yo, 30 wks; c/o increased abd. girth; ascites; dyspnea; adnexal mass	Ovary	1	NHL
5	Merimsky	33 yo, 34 wks; c/o claudication & pain in rt lower limb & muscular weakness; mass in rt hip; splenomegaly via ultrasonogram; BM bx= lymphoma	Boney pelvis	1	NHL
6	Spagnoli	41 yo, 12 wks; vaginal bleeding x 30 days, lg mass in rt iliac fossa & pouch of Douglas and contiguous w/ cervix	Uterus-cervix	1	NHL
7	Giovannini	28 yo, 14 wks; tonsillar enlargement	Tonsils	1	NHL
8	Berrebi	30 yo, 28 wks; present w/lt abducens palsy, diplopia & rt abd. pain, fever, sweats & nausea	CNS, eye, bone marrow	1	NHL
9	Bornkamm	34 yo, 24 wks; lt axillary node enlarged; endoscopy revealed infiltration to the stomach	Lymphatics, stomach	1	NHL
10	Shepherd	36 yo, pp breast swelling & nodularity biopsies performed	Breast	1	NHL
11	Armon	18 yo, 10 wks; amenorrhea & abdominal swelling; dehydrated with profuse sweating, afebrile & mental confusion	Ovary, stomach	2	Malaria, dehydration
12	Valkson	26 yo, 13 wks; severe respiratory distress; superior vena cava syndrome (neck swelling) = mediastinal mass	Trachea, major vessels, thyroid	2	NHL
13	Lysyj	19 yo, 21.5 wks; c/o a painless marble-size nodule in an episiotomy scar with gradual increase in size, w/ later breast involvement	Perineum, breast	6	Inclusion cyst
14	Finkle	24 yo, 20 wks; c/o n/v & diarrhea: 5-cm nontender firm mass on chest wall above rt breast	Mediastinum, chest wall	7	Pregnancy, gastroenteritis
15	Steiner-Salz	26 yo, 27 wks; signs of obstructive jaundice	Stomach, duodenum, hepatic portal system	14	Obstructive jaundice
16	lochim	22 yo, 18 wks; c/o dyspnea, acute onset substernal chest pain	Mediastinum	14	NHL
17	Mehta	26 yo, 24 wks; dyspnea on exertion, cough, SOB, treated for URI x 2 wks w/no improvement, CXR=mediastinal mass	Mediastinum	14	URI
18	Moore	34 yo, 20.5 wks; tachypnea, dyspnea on exertion, nonproductive cough & mediastinal mass	Mediastinum	14	NHL
19	Bannerman	36 yo, 32 wks; c/o breast tumors; died 9 days pp (postmortem dx)	Breast, CNS, uterus	17	Lactation
20	Steiner-Salz	29 yo, 38 wks; GI bleeding; had endoscopy on 3rd pp day = ulcerative tumor of stomach	Stomach, pancreas, omentum, mediastinum	17	Upper GI bleeding
21	Shepherd	15 yo, 28 wks; c/o painless breast enlargement, increased dental looseness w/maxillary osteolytic tumors, abdominal mass & axillary node enlargement	Breast, bone, lymphatics	21	Abnormal lactation
22	Jones	17 yo, 15 wks; c/o bluish discoloration & bilateral enlargement of breasts; later had gingival & rectal bleeding; wt loss, good appetite	Breast, abd. mass	21	Mastitis, pregnancy
23	Ortego	33 yo, 16 wks; c/o groin & axillary node enlargement; respiratory distress	Lymphatics	23	NHL
24	Lysyj	21 yo, 32 wks; c/o pain in rt inguinal region, disturbed rt leg function, palpable pubic ramus mass	Boney pelvis	24	Pregnancy
25	Giovannini	30 yo, 37 wks; rt cervical node enlargement (neck node)	Lymphatics, mediastinum	28	Generalized lymphadenopathy
26	Case	24 yo, 24 wks; dry cough & dyspnea at rest; 4 wks prior to admission treated for URI; acute arrest	Mediastinum, bone marrow	28	URI
27	Hardin	32 yo, 28 wks; eye irritation, swelling & pain in rt orbit; proptosis x 1 month	Eye	30	NHL
28	Armitage	42 yo, 13 wks; c/o bilateral breast nodules & marked tenderness	Breast	30	Mastitis
29	Shepherd	35 yo, 24 wks; c/o breast nodularity x 4 wks, fatigue, jaundice of sclerae & axillary node enlargement	Breast, lymphatics, liver	42	Lactation and NHL
30	Moore**	19 yo, 38 wks; fever, tachypnea, syncopal episodes, mental confusions & slurred speech, acute onset of a follicular rash	CNS, skin	42	Anxiety, pregnancy
31	Steiner-Salz	19 yo, 3rd month pp; history of night sweats, fever, weight loss started prior to delivery	Abd. mass, bone marrow	97	Abdominal mass
32	Steiner-Salz	31 yo, 7th wk pp; c/o syncope & fever; suffered from persistent fever & night sweats last 6 wks of pregnancy	Lungs, mediastinum, lymphatics	91	Pregnancy



TABLE 1 (Continued)

Case	Author	Symptoms	Organ System	Days*	Initial Dx
33	Henderson	26 yo, 13 wks; c/o n/v, diarrhea; 27-29 wks epigastric pain, severe heartburn, diarrhea & vomiting (severe pain different from labor)	Jejunum	112	Pregnancy
34	Shepherd	20 yo, 4th month pp; c/o painful breast swelling & nodularity, extremity weakness, and incontinence of bowel, since 3rd trimester	Breast	114	Lactation
35	Shepherd	20 yo, 36 wks; nonlactating, breast enlargement, cervical & axillary nodes enlarged	Breast	120	Abnormal breast response to hormones
36	Iochim	28 yo, 36 wks; history of neck swelling, stable x 4 months, then increased	Mediastinum, lymphatics	210	Generalized lymphadenopathy
37	Tunca	22 yo, c/o palpable nodularity of lower uterus and cervix, referred for 2 evaluations (= fibroids) became pregnant, delivered, presented 1 month pp w/vaginal bleeding	Uterine cervix	365	Cervicovaginal tumor (fibroids)


\*Day to diagnosis; Dx = diagnosis; yo = year old; wks = weeks; rt = right; lt = left; c/o = complaints of; BM bx = bone marrow biopsy; lg = large; w/ = with; abd = abdomen; pp = postpartum; n/v = nausea and vomiting; SOB = shortness of breath; URI = upper respiratory infection; CXR = chest x-ray.

\*\* Present case report.

and possible tuberculosis; in three it took two weeks or more to arrive at a proper diagnosis. Gastrointestinal (GI) or abdominal symptoms were present in nine cases: as nausea, vomiting, abdominal pain, abdominal swelling, ascites, epigastric pain, and diarrhea, with only one case having a delay in diagnosis of longer than two weeks.<sup>11,14,17,20-22</sup> In two cases of GI bleeding, however, the correct diagnosis of NHL was delayed by two and three weeks respectively.<sup>9,14</sup> Vaginal bleeding and nodularity of the uterine cervix and the peritoneum were the presenting symptoms in three patients,<sup>5,23,24</sup> one of whom had a one-year delay in diagnosis of NHL.<sup>24</sup> Mediastinal involvement and neck swelling were presenting symptoms in 11 patients,<sup>2,6,11-15,25,26</sup> two of whom were initially misdiagnosed as having upper respiratory infections.<sup>11,25</sup>

Table 1 summarizes all of the reported cases, depicting the presenting symptoms, the organ systems involved, the initial diagnoses, and the number of days until the diagnosis of NHL was made. With the exception of breast tumors, of 15 patients with growths, nodularities, or palpable tumors, the correct diagnosis was made within a few days in nine (60%); in six (40%) patients the diagnosis was delayed on the average of 113 days. Of the 37 reported cases of NHL in pregnancy, the correct diagnosis was delayed by more than three weeks in 40% and by more than three months in 20%; the longest reported delay was 365 days.

NHL in pregnancy involves multiple body organs and systems. A wide variation of symptomatic complaints that are similar to those commonly found in pregnancy and other disease processes make prompt diagnosis of NHL in pregnancy a difficult task. NHL should be considered as part of the differential diag-

nosis in pregnant patients with vague and nonspecific symptoms, such as the ones listed in Table 1. 

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# Laparoscopic Evaluation of the Diaphragm in Penetrating Injury to the Lower Thorax

THOMAS S. LAYMAN, M.D.; DONALD E. BARKER, M.D.; and R. PHILLIP BURNS, M.D.

## Introduction

Evaluation of the diaphragm for injury in patients with penetrating trauma to the lower thorax can be difficult. The inaccuracy of physical examination, diagnostic peritoneal lavage (DPL), chest radiographs, and computerized axial tomography (CT) scanning for detecting diaphragmatic injury is well known. To avoid the sequela of missed injury, patients have often been subjected to celiotomy to directly visualize the diaphragm. In many cases, celiotomy has been non-therapeutic, resulting in increased patient morbidity and lengthened hospital stay.

We present a case in which laparoscopy was used to visualize the diaphragm and upper abdominal viscera in a patient at risk for diaphragmatic injury from penetrating thoracic trauma.

## Case Report

A 38-year-old woman entered Erlanger Medical Center after sustaining two small-caliber, low-velocity, gunshot wounds to the chest; she was stable during transport from the scene of her injury. On initial emergency department evaluation, she was alert and responsive, and complained of bilateral chest pain and shortness of breath. Blood pressure was 122/80 mm Hg, heart rate 121/min, and respirations 28/min. Chest evaluation revealed bilateral entrance and exit wounds. Examination of the right hemithorax showed an entrance wound at the anterior axillary line at the T-10 level and an exit wound at the same level at the posterior axillary line. This wound was thought to be superficial to the thoracic cavity. Examination of the left hemithorax revealed an entrance wound at the midaxillary line at the T-11 level and an exit wound at the same level in the posterior midclavicular line. The chest radiograph showed a left 11th rib fracture in the area of the entrance wound and a small left pneumothorax. Her abdomen was not distended, and bowel sounds were present. There was mild left flank and upper quadrant abdominal tenderness present on palpation. Nasogastric aspirate and urine were free of blood.

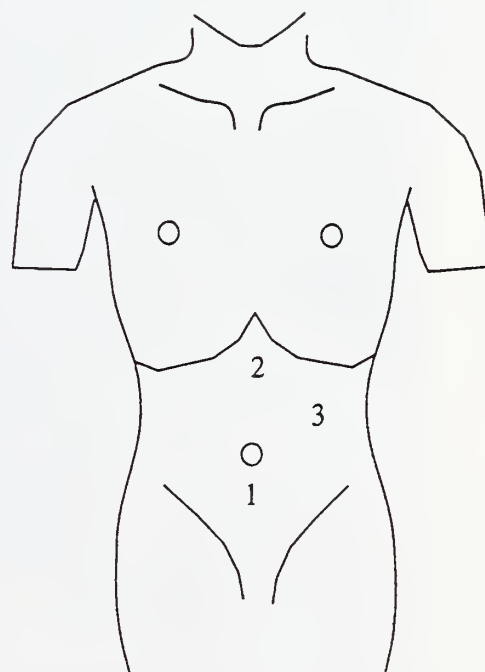
A left closed-tube thoracostomy was performed, yielding approximately 200 ml of blood. Subsequent chest x-ray showed resolution of the pneumothorax. No further blood loss was encountered from the left chest, and the patient remained

hemodynamically stable, alert, and responsive throughout her emergency room stay.

Due to the proximity of the injury to the upper abdomen, further evaluation of the diaphragm and upper abdomen was thought necessary, and based on the extensive experience with laparoscopic procedures at this institution, laparoscopic evaluation of the diaphragm and upper abdominal viscera was considered feasible.

After adequate anesthesia of the patient with a general inhalation anesthetic, a Verres needle was placed through an umbilical incision and 4 liters of CO<sub>2</sub> were insufflated, with an intra-abdominal pressure of 15 mm Hg. Peak inspiratory pressures monitored during insufflation of the abdomen ranged from 21 to 23 cm H<sub>2</sub>O and did not change significantly over the course of insufflation. No air leak was noted from the chest tube, and the patient remained hemodynamically stable.

A 10-mm laparoscopic trocar was placed through the umbilicus (Fig. 1) and the laparoscopic camera inserted. No blood or other fluid was noted in the peritoneal cavity; reverse Trendelenburg and right table tilt positioning were performed



**Figure 1.** Trocar insertion sites: (1) Umbilical 10-mm trocar site. (2) Upper midline 10-mm trocar site. (3) Left midclavicular 5-mm trocar site.

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to allow better visualization of the left upper quadrant of the peritoneal cavity. The left hepatic lobe extended completely to the left abdominal wall, obscuring the diaphragm. A second 10-mm trocar was inserted just to the left of the midline and 3 cm below the right costal margin, and a 5-mm trocar was inserted below the left costal margin at the midclavicular line (Fig. 1). Visualization of the left hemidiaphragm was obtained by retracting the left lobe of the liver with a grasping forcep passed through the upper 10-mm trocar port and electrocautery dissection of the triangular ligament of the left lobe of the liver via the 5-mm port. Using these maneuvers, the left hemidiaphragm was well visualized and no diaphragmatic injury was apparent. Attention was then directed to the right hemidiaphragm, which was well visualized after retraction of the right lobe of the liver. No other intra-abdominal injuries were appreciated. The laparoscopic evaluation was terminated and air was evacuated from the peritoneal cavity, the trocars removed, and the trocar incisions closed. The operative procedure was completed in 1 hour and 20 minutes without anesthetic or operative complications (Figs. 2 and 3).

The patient's hospital course was uncomplicated. Her nasogastric tube and Foley catheter were removed on postoperative day 1. On postoperative day 2 she was tolerating a regular diet. Her chest tube was removed on postoperative day 3 and she was discharged home on the morning of postoperative day 4 without activity restrictions. At her two-week follow-up she had no complaints related to her injuries or surgery, and had resumed her usual level of activity.

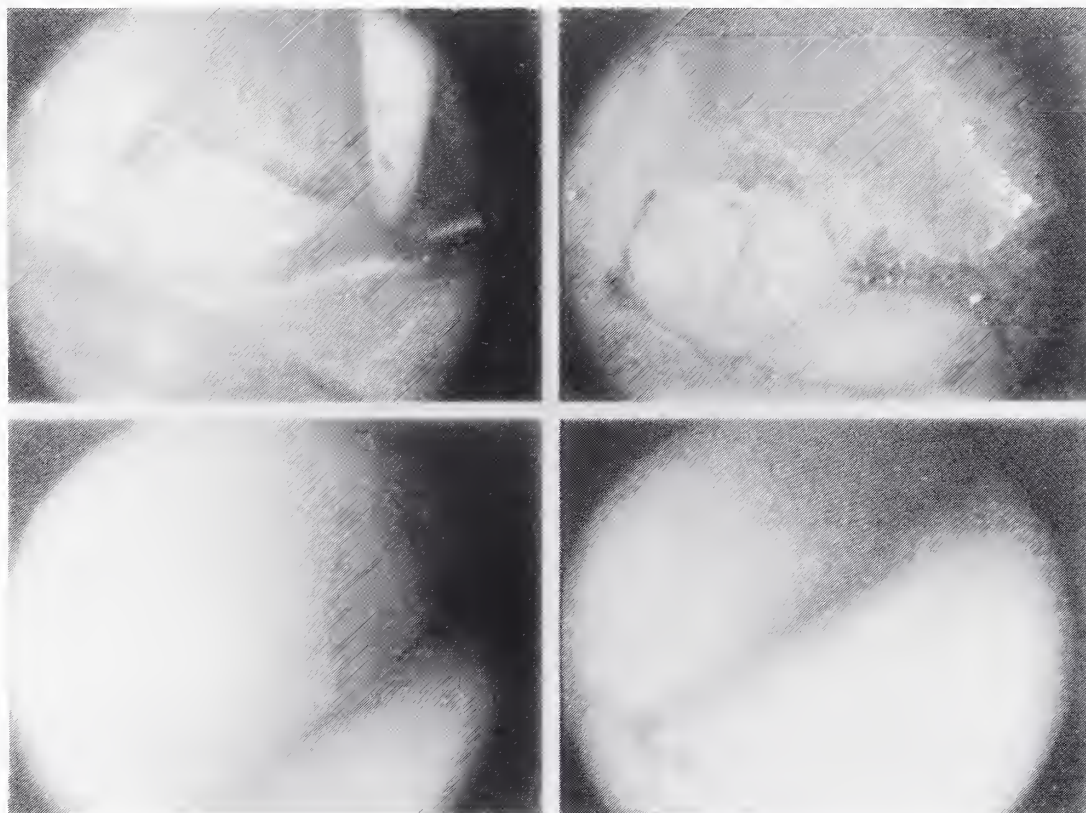
## Discussion

The significant mortality and morbidity from missed diaphragm injuries is well documented. In 1597, Ambrose Paré reported the death of an artillery captain who had recovered from a gunshot wound to the abdomen eight months previously. Autopsy showed a strangu-

lated gangrenous colon herniated through a diaphragmatic defect so small that it would admit only the tip of the little finger.<sup>1</sup> In modern day literature, Madden et al<sup>2</sup> reported 28 cases of missed diaphragmatic injuries from stab wounds resulting in herniation of abdominal viscera through the diaphragmatic defect within two days to eight years after the initial injury. Eleven of these patients died from incarcerated bowel.<sup>2</sup>

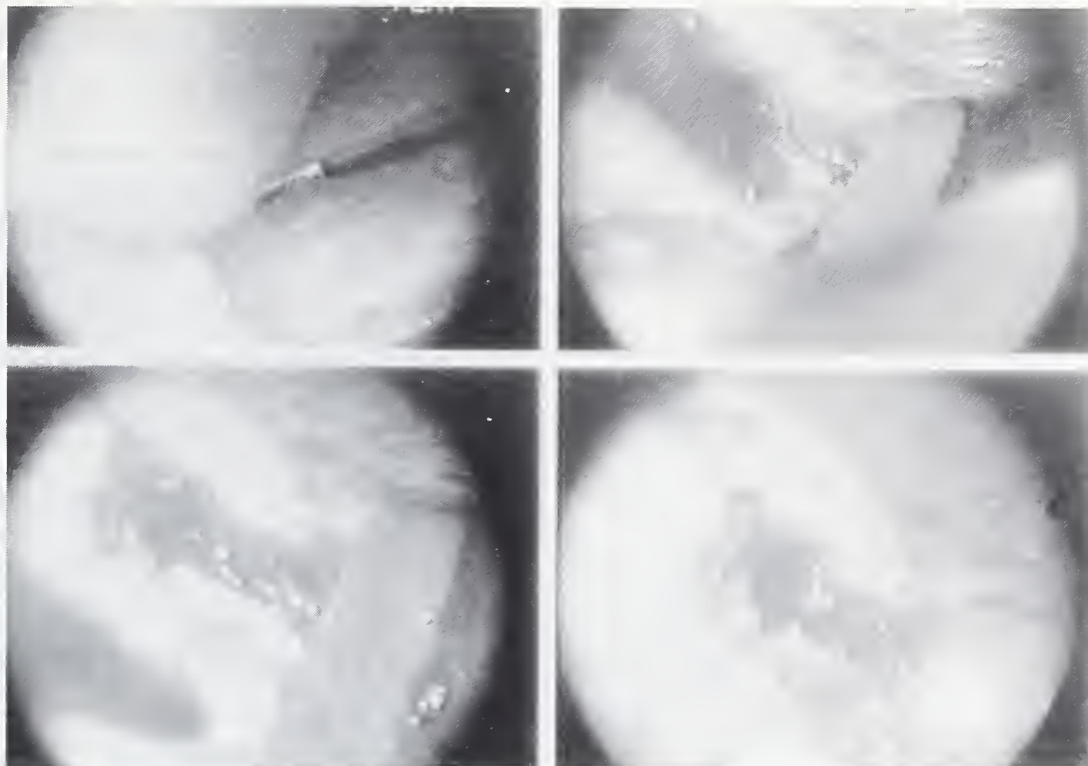
The diaphragm normally serves not only as a muscle of respiration, but also as an anatomic barrier between the pleural and peritoneal cavities, and its disruption can result in migration of abdominal viscera into the pleural cavity. This process is enhanced by the positive pressure of the peritoneal cavity, which can be as much as 200 mm Hg during strenuous abdominal muscle contraction and the normal negative pressure of the pleural cavity during the inspiratory phase of the respiratory cycle.<sup>3</sup> Herniation of abdominal viscera into the pleural cavity through a diaphragmatic defect can acutely affect cardiorespiratory function or result in bowel obstruction or strangulation. The areas where occult diaphragmatic injury may result in delayed incarceration and strangulation of viscera have been outlined by Madden et al (Fig. 4).<sup>2</sup>

Diaphragmatic injury should be suspected in any patient with penetrating injury to the chest below the 5th intercostal space. Diagnosis of small defects of the diaphragm such as those resulting from small-caliber gunshot wounds or stab wounds is difficult except by direct visualization. Suspicion of injury is most often based on the proximity of the wound tract to the diaphragm.



**Figure 2.** (Top left) Dissection of the left triangular ligament from diaphragm. (Top right) Stomach viewed over retracted left lobe of liver. Central tendinous area of diaphragm is visualized after dissection of triangular ligament. (Bottom left and right) Right lateral abdominal wall and diaphragm viewed over right lobe of liver.





**Figure 3.** (*Top left*) Right abdominal wall and edge of diaphragm viewed over top of retracted right lobe of liver. (*Top right*) Posterior aspect after retraction of left lobe of liver. (*Bottom left*) Retraction of the stomach reveals posterior aspect of diaphragm. The spleen lies to right. Dissected area is where the left triangular ligament was attached. (*Bottom right*) Diaphragm and spleen.

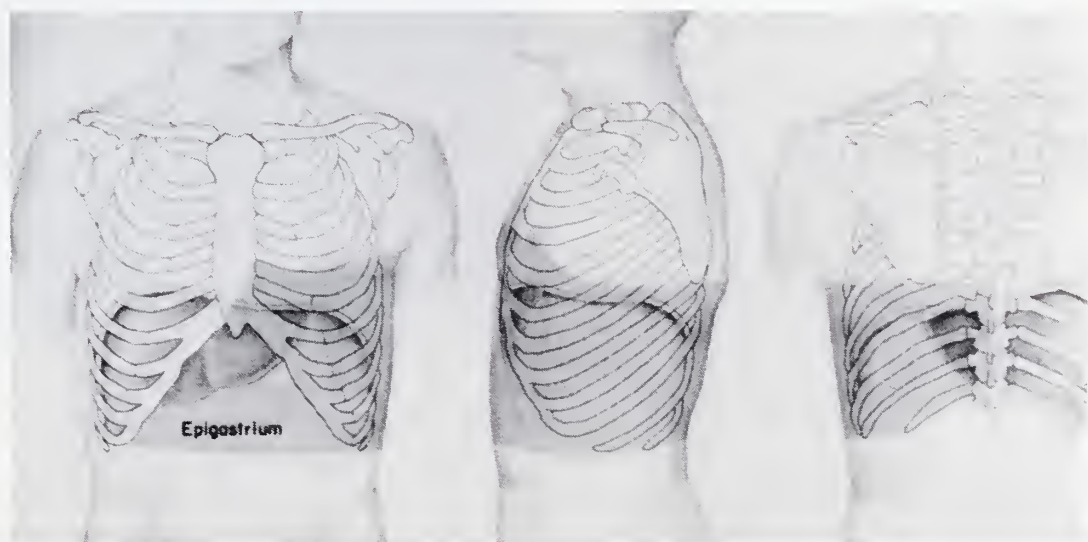
Physical examination has been shown to be inadequate in detection of penetrating diaphragm injuries. Thal<sup>4</sup> reported a positive laparotomy rate of 35.9% in patients judged by preoperative examination to have no intra-abdominal injury and a negative laparotomy rate of 14.3% in patients judged to have intra-abdominal injury on preoperative physical examination.

Chest x-ray is inadequate unless there are obvious signs of visceral herniation. In a review by Aronoff et al,<sup>5</sup> 42% of patients with penetrating injury to the diaphragm had a normal chest x-ray. Most chest x-rays showed only a pneumothorax or hemothorax unless visceral herniation had already occurred. Twenty-

two percent of patients with viscera found in the chest laparotomy had a normal preoperative chest x-ray.

CT scan has been used with some success in the diagnosis of ruptured diaphragm due to blunt injury, but its effectiveness in penetrating trauma is questionable. As a result, CT scan is rarely performed for specific evaluation of diaphragmatic injury from penetrating trauma.

Diagnostic peritoneal lavage has been advocated in evaluating peritoneal penetration in thoracoabdominal penetrating injury.<sup>4,6-9</sup> Thal et al<sup>10</sup> found that 25.4% of patients with negative diagnostic peritoneal lavage had serious intra-abdominal injuries at celiotomy. Most sur-



**Figure 4.** Stab wounds over the shaded area may result in occult diaphragmatic injury and incarcerated hollow viscus (from Madden et al<sup>2</sup>).



geons consider peritoneal lavage inadequate for detecting diaphragm injuries, and abdominal exploration is necessary in gunshot wounds to the chest or abdomen.

Recent advances in laparoscopic technique and equipment have broadened its application in diagnosis and treatment of intra-abdominal disease processes. There has been little work to evaluate the applications of laparoscopy in trauma patients.

## Conclusions

In this case, laparoscopy was used to evaluate the diaphragm in a patient with a gunshot wound to the lower thorax. Laparoscopy allowed visualization of both hemidiaphragms and the upper abdominal viscera. There were no complications. A nontherapeutic celiotomy was avoided, and the length of hospital stay and patient morbidity were reduced. Laparoscopy appears to be a useful diagnostic aid for evaluating the diaphragm in cases of lower thoracic penetrating trauma. Additional capabilities and limitations of laparoscopy in trauma patients remain to be defined.

## Acknowledgments

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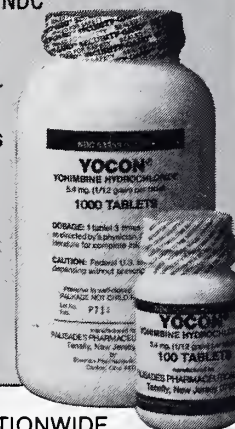
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

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# Miscarriage in a Patient With Migraines

## Case Report

A 34-year-old woman was admitted to Vanderbilt University Hospital with a 12-year history of neurologic symptoms and a recent miscarriage.

The patient's illness began in 1980, when she experienced several episodes of unilateral amaurosis fugax preceded by scotomata. CT scan of the head, electroencephalogram (EEG), and neurologic examination were normal. With a diagnosis of migraines, her symptoms abated for several years.

In 1990, the patient began to experience memory loss which interfered with her ability to perform her job as a lawyer. An EEG was again normal. MRI of the head showed focal areas of white matter disease. Approximately one year later, the patient was given the diagnosis of complex parietal seizures and treated with carbamazepine, to which she became allergic. Treatment was then initiated with phenytoin, but her memory loss continued to progress.

In December of 1991, the patient became pregnant for the first time, but pregnancy ended in intrauterine fetal demise at 17 weeks. Pathology revealed degenerative changes and focal infarction of the placenta. Physical examination shortly thereafter revealed a new heart murmur. The patient's miscarriage and her history of neurologic events prompted a neurologist to measure an anticardiolipin antibody, which was positive. She was admitted to Vanderbilt University Hospital for further evaluation.

Physical examination revealed a healthy-appearing woman in no distress. The temperature was normal, blood pressure 150/90 mm Hg, pulse 86/min, and respiratory rate 16/min. She had a 2-3/6 systolic murmur, which was heard best at the apex and radiated to the axilla. The fundi were normal, without splinter hemorrhages or other peripheral manifestation of endocarditis. Except for short-term and long-term memory loss, her neurologic examination was negative.

Laboratory examination revealed a WBC count of 4,700/cu mm, hemoglobin of 11 gm/dl, and platelet count of 78,000/cu mm. The partial thromboplastin time was 41 seconds, while the prothrombin time was normal. Antinuclear antibodies were positive at 1:320 with 3+ speckled pattern. Complement studies, including C3, C4, and CH50, were low. The dilute thromboplastin time, expressed as a ratio to control, was 1.5 (normal 0.8 to 1.3). The Russell's viper venom time, also expressed as a ratio, was 1.5 (normal 0.8 to 1.3).

Echocardiogram revealed a vegetation on the mitral valve. The patient was treated with intravenous heparin and underwent mitral valve replacement. Pathologic examination of the patient's mitral valve revealed nonbacterial thrombotic endocarditis involving both the anterior and posterior leaflets of the mitral valve. The valve itself appeared normal. The patient did well following surgery and was discharged on oral warfarin. She was advised of the teratogenic effects of warfarin and the need to notify her physician before attempting to conceive a child.

## Discussion

Lupus anticoagulant and anticardiolipin are antibodies that bind to anionic phospholipids such as cardiolipin, phosphatidylserine, phosphatidylinositol, and phosphatidic acid.<sup>1</sup> They also bind with low affinity to neutral phospholipids, VDRL antigen, and DNA. The lupus anticoagulant and anticardiolipin antibodies appear to be distinct but related entities.<sup>2</sup> Lupus anticoagulant blocks in-vitro assembly of activity of the Xa-Va-Ca++-phospholipid complex (prothrombinase), and thus the conversion of prothrombin to thrombin.<sup>3</sup>

The antiphospholipid antibodies have been associated with systemic lupus erythematosus (SLE), various other autoimmune diseases, and a number of drugs such as chlorpromazine, procainamide, or hydralazine.<sup>1</sup> Antiphospholipid antibodies are associated with an increased risk of thrombosis, neurologic disease, thrombocytopenia, and fetal loss.

The presence of antiphospholipid antibodies is significantly associated with an increased risk of both venous and arterial thrombosis in SLE. In one review, thromboembolism occurred in 42% of 340 patients with lupus anticoagulant, but in only 12% of 338 patients without it.<sup>1</sup> Whether patients without lupus and with antiphospholipid antibody are at increased risk of thromboembolism is a little less clear. The mechanism of thrombosis in patients with antiphospholipid antibodies is also not clear, but may involve direct endothelial damage, antibody-mediated platelet activation, and inhibition of endogenous anticoagulants.

Eighty-nine percent of patients with SLE and valvular disease have antiphospholipid antibodies, compared to 44% of patients with SLE and no valvular heart disease.<sup>4</sup> Galve et al<sup>5</sup> recently examined the prevalence of valvular heart disease in 28 patients with the primary antiphospholipid syndrome without lupus. Ten patients had cardiac involvement. Eight patients had murmurs of regurgitation. The valvular lesions differed from those typically seen in Libman-Sacks endocarditis in that there was irregular thickening of the valve without vegetations. Stenotic lesions were not found.

Antiphospholipid antibodies have been associated with an increased incidence of neuropsychiatric disorders in patients with lupus and lupus-like syndromes. For example, the incidence of neuropsychiatric disorders is 49% in anticardiolipin-positive lupus patients,

*(Continued on page 477)*

Presented by Nancy J. Brown, M.D., Hugh J. Morgan chief medical resident, Vanderbilt University Hospital, Nashville.

## The Health Care Crisis: Causes, Implications, and Strategies

GEORGE W. SMITH, M.D.

Traditional public health encompasses a range of preventive and curative health services aimed at protecting and improving the health and well-being of all citizens. Within this broad scope are efforts to control communicable diseases through immunizations, to monitor health and identify the onset of acute and chronic epidemics through the collection of health statistics, to screen for diseases such as AIDS, venereal diseases, and hypertension, and to provide education for prevention and health promotion.

As insurers and providers of preventive health services, state health agencies play an important role in the total health care system. Tennessee, like most states, faces a difficult fiscal crisis in the provision of health services to its citizens. Health care consumes a proportionate share of our resources. Approximately 16.3% of the state's population of 5.07 million lack easy access to good health care. The state Medicaid program covers 829,000 citizens and pays for approximately 50% of the 70,000 births each year in Tennessee.

As some states spend more than 20% of their budgets on health care, the Medicaid program has become the fastest growing budget item, absorbing over 50% of revenue growth. Tennessee's \$2-billion Medicaid program consumes 6.52% of the state budget in order to meet the federal match for funds. The total 1990 per capita health spending in Tennessee was \$2,262, compared to \$1,510 in 1980. Spending projections by the year 2000 are \$3,345 per year for every man, woman, and child in Tennessee. Precious resources that could be invested in education, housing, nutrition, and family support are being consumed by the spiraling costs of health care, which are increasing at a rate exceeding general inflation. Clearly, we cannot continue to spend such vast sums of money, shoring up a patchwork system of care and leaving a growing number of Tennesseans without care. The human and economic waste is too great.

The present health system of the United States does not meet the full definition of a system. Rather than

being an entity with well-coordinated components, it is a patchwork of multiple public and private financing mechanisms, each with its own rules for eligibility, payment, and coverage. Rather than working cooperatively, the sectors compete, each protecting its own interests and trying to reduce individual risks and cost. As a result, there are gaps in coverage, duplication of effort, and high administrative costs.

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### See editorial comment in this issue.

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An analysis of U.S. health care expenditures against mortality and morbidity data suggests that the present system cannot deliver on the goal of a healthier citizenry. Using several measures to assess the health status of our citizens, the U.S. receives an inferior mark when compared to our major industrialized trading partners. Canada, Germany, Great Britain, and Japan spend substantially less on health per capita and as a percentage of the gross national product than the United States; yet, all have lower infant and maternal mortality rates, lower mortality rates for low-risk and moderate-risk surgery, and higher life expectancies for both men and women.

Furthermore, several health status indicators in the United States are getting worse. Long-defeated diseases, including TB, measles, mumps, rubella, and rabies, are now staging a comeback. Memphis/Shelby County presently has the second highest early syphilis rate in the nation. Challenges such as AIDS, teen pregnancy, drug abuse, and intentional injuries offer convincing evidence that the present health care system is unable to cope.

The nation cannot afford to leave the health care system as it currently exists. Without significant change, we will continue to face spiraling costs, supporting a system that pays questionable dividends. If steps are not taken now to build a workable health care system, too many children will continue to go to school unprepared to learn, too many adolescents will face serious but preventable health problems, and too many adults will be prevented from leading full and productive lives.

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From the Bureau of Health Services, Tennessee Department of Health, Nashville.



The national health care system may be sick, but several vital signs indicate that resuscitation is possible. A redirection of existing resources and the commitment to develop a real system of health services is the first step to building a system responsible to the needs of our citizens.

In reforming the current system, we must promote preventive and primary care services. Sophisticated technology to diagnose and treat disease has outstripped society's ability to pay for it. Many of these expenses could be avoided, however, if current available preventive and primary care services were used to prevent disease.

We have the knowledge and the ability to avert the needless and premature loss of life by using proven strategies for health promotion and disease prevention, and by providing timely primary health services.

- For every \$1 spent on prenatal care, more than \$3 can be saved in the first year of a child's life.

- Immunizations can save even greater costs of illness, complications, and death. The measles, mumps, and rubella vaccine is estimated to save \$14 for every \$1 spent on immunization. And even with higher costs

associated with product liability, the pertussis vaccine produces a positive benefit-cost ratio.

- Work-site treatment and monitoring of high blood pressure has been estimated to save from \$2 to \$4 for every \$1 spent.

- Programs to help diabetics manage their illness and reduce costly and life-threatening complications have been shown to save more than twice their cost.

- Cigarette smoking accounts for more than 434,000 premature deaths and 1.2 million years of potential life lost each year. It is the leading cause of preventable illness and death in the United States.

Preventive and primary care services are certainly not the panacea for solving the nation's health care crisis, but a system that fully utilizes these proven cost-effective services could significantly reduce total expenditures on health care. Building a system of care that emphasizes prevention and primary care will necessitate a philosophical change—a focus on preserving and enhancing the conditions in which people can be healthy. No new technology or methods are required—it is a matter of applying our collective will together with our resources.

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## Vanderbilt Morning Report . . .

(Continued from page 475)

compared with 12% in anticardiolipin-negative patients.<sup>1</sup> Neurologic disorders of vascular origin—stroke, retinal artery occlusion, and amaurosis fugax—predominate among patients with antiphospholipid antibodies. There is a high incidence of valvular lesions and of positive antinuclear antibodies among patients with antiphospholipid antibodies and stroke or transient ischemia attack.<sup>6</sup>

Finally, antiphospholipid antibodies appear to be associated with an increased risk of fetal loss, although the data are not conclusive. Extensive placental infarction has been reported in some studies of patients with spontaneous abortion or fetal loss and antiphospholipid antibodies.<sup>7</sup>

Diagnosis of lupus anticoagulant activity depends on the demonstration of an abnormality in the phospholipid-dependent coagulation reaction. The abnormality must be caused by an inhibitor rather than by a deficiency of coagulation factor or factors, and the inhibitor must be directed at phospholipid and not at specific coagulation factors. In short, plasma samples that have an abnormal activated partial thromboplastin time or dilute Russell's viper venom time on testing of standardized mixtures of pooled and patient plasma, as well as abnormal clotting time on testing with the plate-

let neutralization procedure and no evidence of heparin or fibrin-fibrinogen degradation products, may be considered positive for lupus anticoagulants.<sup>8</sup> Either radioimmunoassay or enzyme-linked immunosorbent assay may be used to measure anticardiolipin.<sup>1</sup>

Corticosteroids suppress the lupus anticoagulant (and, to a lesser degree, anticardiolipin) in patients with lupus. Long-term anticoagulation with warfarin decreases the incidence of venous thrombosis in patients with the antiphospholipid syndrome.

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# Recertification—A Real Hazard

J. KELLEY AVERY, M.D.

### Case Report

The patient was an extremely obese man in his mid-60s who came to the emergency room (ER) physician complaining of sudden, very severe pain in the left side of the abdomen. The patient characterized it as having a "pulling" or "stretching" quality. He gave no history of nausea, vomiting, or diaphoresis. He had been a heavy smoker (one to two packs/day) for 40 years; his alcohol consumption was only social and rare. He had been obese for his entire adult life, but had gained some weight in the last six months. His father had a "heart attack" at age 55, but lived to the advanced age of 94. His mother had died in childbirth when he was small.

The physical examination revealed an obese man who gave his weight as over 250 lb. His blood pressure was elevated at 180/100 mm Hg. The examination of the abdomen was unremarkable except for hypoactive bowel sounds, some tenderness in the lower left side, and marked obesity. The abdomen was said to be markedly distended but no masses could be palpated and there was no mention that auscultation had been done. Blood pressures were not taken in the legs and there was no mention of peripheral pulses. A rectal examination was normal.

Since the pain had been sudden and severe, and due to the difficulties in evaluating this very obese man, he was admitted to the hospital for further study and observation. The admission laboratory tests were unremarkable. The urine was normal. The CBC showed a mild leukocytosis of 13,600/cu mm with a normal differential. The RBC count was reported at 4,700/cu mm with the PCV 41.4% and the hemoglobin 13.6 gm/dl. Chemistries, liver enzymes, and serum lipids were all within normal limits. The patient's routine medications, Indocin for gouty arthritis, and Lasix for mild hypertension, were continued, and Demerol was ordered for pain.

The attending physician suspected large bowel disease and ordered upper and lower bowel studies. He asked that stool be checked for blood. The patient's pain was severe enough to require narcotics for relief. Reports of these studies showed only a hiatal hernia and some diverticula in the colon, without evidence of diverticulitis.

The patient continued to have abdominal pain requiring narcotics. Periodic blood pressures were systolic 150 to 180 mm Hg and diastolic 100 to 110 mm Hg. An abdominal ultrasound revealed possible gallstones but no other abdominal masses. The patient had no stools, thus the occult blood studies were not reported.

On the third hospital day, the attending physician received a call from the medical director representing the patient's insurance carrier, stating that since he was not receiving any in-

travenous fluids, etc., his insurance would not cover him beyond that day; thus the patient needed to be discharged the following morning. The physician had initially called the carrier and suggested to the nurse to whom he spoke that his patient needed more time in the hospital. A discharge order was written for that day. The physician's discharge note reflected the conversations with the insurance company.

The patient was taken to his car, but before he could get in, he collapsed. In the ER, he again complained of abdominal pain, but this time on the right side in the upper quadrant. There was tenderness in the RUQ but no rebound tenderness. Bowel sounds were said to be present. Rectal examination was normal. The stool on the examining glove was described as yellowish-brown and almost liquid. He was again admitted with the diagnosis of abdominal pain.

The attending physician asked for an internist to evaluate his patient at this time. The patient complained bitterly of inability to void, which had not been a prominent part of his previous admission. Catheterization yielded about 20 ml of urine, with some improvement in the pain. The consultant wrote on the ER record, "plan to admit, hydrate, and observe." The patient was transferred from the ER to the floor. The nurse wrote, "In no acute distress. Skin warm, color OK. Complaints of lower abdominal pain." About ten hours after admission, at 5:00 AM, the patient complained that the Foley catheter did not feel like it was working. At this time the urine was described as "amber." Pedal pulses were felt bilaterally by the nurse but were said to be "weak."

On the morning rounds, the internist wrote that the admission hematocrit was down to 29%, the pain was better, and that he was awaiting the old chart in order to compare with the previous hematocrit. He ordered an anemia study. The patient related his continuing abdominal pain to the inability of the Foley catheter to empty his bladder and the lack of a bowel movement.

These complaints continued throughout the day. The anemia study revealed only the low hematocrit and hemoglobin. An enema given about 10:00 PM the second night of this hospital admission yielded "golf ball-like" stool with "much relief."

The following morning, the hemoglobin and hematocrit were continuing to fall. The hematocrit was 24% and the hemoglobin 8.0 gm/dl. The continuing complaints relative to emptying the bladder and the continued obscurity of the origin of the pain led the consultant and the attending physician to request an evaluation by a urologist. The history was reviewed, as was the admission examination. An IVP/cystogram was planned.

In the early evening hours the preparation for the IVP was begun. The patient had experienced pain during the night but had obtained some relief from a K-pad. He requested the bedpan, complained of severe abdominal pain, and collapsed. No blood pressure could be obtained. The code team was called.

The internist came to the hospital and called for the vascular surgeon who came, transferred the patient to the operating room, and, after intubation and induction, opened the abdomen to find a ruptured abdominal aneurysm. At least 4,000 ml of

Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.



blood were present in the abdomen. The aorta was replaced from below the renal arteries to the iliac bifurcation, the blood was replaced, and the patient came off the table alive.

He suffered throughout the postoperative period from hypoxic encephalopathy, respiratory distress, and renal failure. He recuperated some, being able to be up in a wheelchair and about six weeks after surgery was transferred to a rehabilitation unit in the hospital. For another six weeks he seemed to be slowly improving.

About ten weeks after the initial admission, at 10:00 PM the patient asked for the bedpan. He suddenly stated that he "feels funny." The blood pressure began immediately to drop, the respirations increased, and the pulse rate became faster. He became progressively short of breath, requiring increasing oxygen. The blood pressure was barely audible at 60 mm Hg systolic. The patient was transferred from the rehabilitation unit to the ER for monitoring. Despite intravenous fluids, controlled respiration, vasopressor, and other supportive measures, the patient died about five hours after the sudden onset of dyspnea. The consultant believed a pulmonary embolus had caused his death.

### Loss Prevention Comments

It is easy to second-guess the attending physician and the consultant in this case. This was an exceedingly tough case to figure out. The patient was markedly obese, and his abdominal findings were atypical despite his obesity. The ultrasound had not revealed any masses consistent with an AAA. The pedal pulses were said to be present but "weak." The symptoms referable to the

urinary tract and the constipation were, to say the least, confusing. Between the first and the second admission, the abdominal pain changed from the lower left side to the upper right side. The consultant did not have the previous chart in order to see quickly that the hematocrit had fallen precipitously. Perhaps the physicians "chased rabbits" with bowel studies and urological procedures, but, again, that is easy to say from this perspective.

One must wonder what would have happened had the patient not been discharged. At least, the rupture and collapse would probably have occurred under more controlled conditions. More than likely, the attending physician and the consultant would have arrived at a vascular diagnosis with a little more time to study this very confusing patient. What can we learn? It must be obvious from this record that the attending physician did not agree that this patient was a candidate for discharge when he received the "word" from the medical director of the patient's insurance carrier that his patient would not be covered beyond that day. It must be a principle that we do what is clinically appropriate for the patient regardless of what the insurance company says. The source of payment for the hospital and ourselves must be secondary to our clinical judgment. We must not let anyone, including the patient, pressure us into doing otherwise!



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## **The Physician's Responsibilities in Dealing With Organ Donations**

ROBERT BOWERS, M.D., *Chairman*  
TMA Communications and Public Service Committee

Today, more than 22,000 patients across the nation are on waiting lists to receive a suitable donor organ. Most wait for more than a year before receiving an organ, if they receive one at all.

Opinion polls continue to show growing public acceptance of organ donation. A 1990 Gallup poll found 85% of adults in favor of organ donation, and 60% said they would be willing to donate their own organs. Our Tennessee Medical Association's Community Awareness, Resource, and Education (CARE) Committee's 1992 study concluded that 45% of Tennesseans would be willing to sign an organ donation card to donate their organs. Unfortunately, however, a study by the Partnership for Organ Donation found 30% of potential organs are not donated because family members are not approached about donation.

Two new laws provide an obligation and opportunity for physicians to communicate with their patients about this sensitive issue. Tennessee was one of the first states to allow patients to decide what kind of medical care they want near the end of their lives. Under the state's Right to Natural Death Act, amended last year, advance directives (also known as living wills) let patients decide if they want to receive food and water by artificial means and if they want to donate organs and tissues after death. As a membership benefit, each TMA member received a copy of a TMA-developed power of attorney form and a living will form. If you need additional copies or information on these forms, please contact Marc Overlock at TMA.

In addition, a new federal law, the Patient Self-Determination Act, which went into effect Dec. 1, 1991, requires hospitals and health care workers, including physicians, to inform patients about their rights to determine medical care, including organ donation.

Together, these two laws allow patients a new level of control in deciding their treatments, and offer physicians an opportunity to better serve and communicate with their patients.

The relationship between an attending physician and

a family is often forged over a period of years. The trust that develops as the physician interacts and communicates with the family is an integral part of the patient-physician relationship. The physician develops knowledge and insight into the patient's attitudes and family relationships and understands the best way to approach family members about sensitive issues.

According to a recent study published in the *New England Journal of Medicine*, families are more receptive to the concept of organ donation if they have a strong rapport with the medical staff and feel involved in the decision-making process.

While physicians, hospitals, and health care workers now have a legal obligation to ask patients about their wishes, it is crucial that the attending physician be consulted before a family is approached about an important decision such as organ donation.

Families must be helped through this difficult time, and physicians are in an ideal position to help ensure the availability of desperately needed organs. When discussing the options with families and patients, sincerity, honesty, and consideration for the family and patient are vital to successful communication on such a sensitive topic.

### **MOVING? Send Us Your Address**

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Effective Date of New Address \_\_\_\_\_

Send to: TMA, PO Box 120909, Nashville, TN 37212-0909





CHARLES ED ALLEN

## *The Ticking Time Bomb*

Somewhere in the dim past I heard a whimsical saying which describes our society's approach to the rampaging plague called AIDS. "When in wonder, when in doubt, run and holler, scream and shout" pretty well sums up the substance and result of our attempts to control the tidal wave of acquired immunodeficiency syndrome.

OSHA's strict regulation of hospitals and physician offices will prevent some infections. In relation to the total of new cases, OSHA's program will have about the same impact as dipping a bucket of water from the ocean.

Next comes the condom conundrum. Presumably condoms provide "safe sex." This supposition forms the basis of most educational efforts directed toward HIV prevention. Surveys reveal that condoms are used with less than 50% of teenage sexual encounters. Even when used, condoms are not fail-safe.

Use of contaminated needles by drug addicts has helped to ignite the epidemic among our heterosexual population. Distribution of sterile needles to addicts has not appreciably reduced AIDS transmission.

Reports of a vaccine or other treatment to prevent or to ameliorate AIDS are not encouraging. Recent discovery of AIDS in people who are HIV-negative is a warning of yet greater problems ahead.

The greatest tragedy of this worldwide devastation is that many innocent people are victims—spouses, infants, recipients of contaminated blood products, health care personnel. What can be said or done to relieve their remorse and suffering? Absolutely nothing.

Time-proven methods of infection control have largely been abandoned in the fight against AIDS. Political pressure and false economy have hindered effective screening and contact follow-up. High-risk individuals cannot be routinely screened on hospital admission. Now it appears that the epidemic is no longer containable, as evidenced by the explosion of cases in some African countries.

No one can reliably predict the final effect of AIDS on this nation and the world. Addicts will probably eventually eliminate themselves, but only after they have propagated this disease to many non-addicts. Indiscriminate sexual activity will continue to claim increasing numbers of victims.

Contemporary mores do not recognize the potential disasters of unfettered sexual behavior. "Family values" are ridiculed in the press, on television, and by some political leaders. Five thousand years of accumulated wisdom proclaims that the only safe sex is monogamous sex. The moral basis for prevention of AIDS will ultimately prevail, but not before the loss of millions or billions of human lives.

*Charles E. Allen, M.D.*

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OCTOBER, 1992

# editorials

## Meddlesome Matty

The rise in popularity of H. Ross Perot in the lists of presidential hopefuls was something wonderful to see, but as it turned out, a flash in the pan. The suggestion that his withdrawal from combat would place him now in the position of king-maker ignored the antipathy his defection generated among his vast army of supporters, who feel (a word I seldom con- done in such a context, but I think it the only appro- priate one here) betrayed.

The strength of Mr. Perot's never-formalized can- didacy appalled, shocked, and even frightened his opponents, the announced candidates, who didn't, and still don't, I think, know what to make of the breadth of a support that knew no bounds of sex, race, age, social or financial status, or political per- suasion. I know, though; it's really no mystery at all. Those supporters all had, and indeed still have, a burning desire to overthrow the United States gov- ernment in the only peaceful means at their disposal. The withdrawal of that slim hope has left them frus- trated and angry. The clean-scrubbed Bobsy twins peering out from the cover of *Time* magazine in the characteristic stance of the confident con-artist of- fered no hope at all, and I harbor a suspicion that many of the Perot supporters will just stay home come Election Day. What else they might do I have no way of knowing, except that there is a whole host of angry, disaffected folks out there who have a deep distaste for anything having to do with Washington. Me too.

I don't know why the latest bit of effrontery by the U.S. gov'mint should have annoyed me so, as if I had been surprised, and left me, by turns, flabber- gasted, frustrated, and enraged. After all, I have suf- fered, along with the rest of you, through the indigni- ties of Medicare regulations, CLIA, OSHA, and so on, not to mention countless non-medically-associated governmental affronts. But it did. On returning joy- ously to my native soil (pavement, actually) from two weeks on foreign shores, which, though magnificent, are no match for our own, what to my wondering eyes should appear but the distressing missive, a copy of which stares out at you from the facing page, di- rected to several hundred of your aging colleagues, myself among them, by our own medical association about our own—my own—medical journal (Exhibit A).

Now I recognize that Mr. Hadley Williams, our CEO, was simply the bearer of evil tidings not of his own making, and to blame him or our Association would be simply shooting the innocent messenger. Neither is the measly sum of ten bucks at issue; it will do nothing at all to harm my financial situation, nor yours either, I expect. Nor is it the niggling an- noyance engendered by paying an unnecessary bill, since it is no more of a niggling annoyance than pay- ing any other bill. If the Association's Board of Trustees, or even its staff, had determined that in order to stay afloat the Association must charge vet- eran members for their subscription to the *Journal*, I'm sure nearly all, or maybe even to a man, would pay up gladly (though it may be that I, for pretty obvious reasons, have a higher opinion of the publi- cation and its usefulness than you do). But the Board



## EXHIBIT A

July 20, 1992

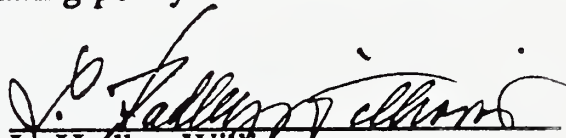
Dear Doctor:

As a result of an audit by the United States Post Office, TMA is forced to change long standing policy concerning the distribution of the Journal of the Tennessee Medical Association to veteran and retired dues exempt members.

Beginning immediately, if you would like to continue receiving the Journal, it will be necessary to purchase a subscription. However, TMA has reduced its annual subscription rate for dues exempt members to \$10.00 which is 50% of the regular subscription price.

Please fill out the subscription form below and return it to our office along with your payment. The subscription will run for one year.

Again, we regret that we can no longer provide the Journal to you free of charge, but it is necessary that we comply with Federal Regulations mailing policy of the Post Office.

  
L. Hadley Williams  
Chief Executive Officer

### SUBSCRIPTION ORDER FORM

Enclosed is a check in the amount of \$10.00 for a one-year subscription to the Journal of the Tennessee Medical Association.

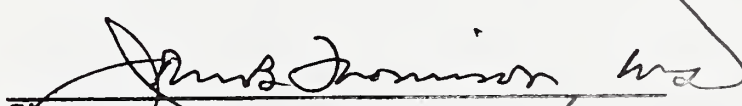
I understand that this subscription will begin with the October issue (deadline for receipt of payment is September 1, 1992) and that I will be billed each year at expiration date for renewal.

Please send subscription to:

Name JOHN B. THOMISON, MD  
Address 230-25th AVE, N  
City NASHVILLE State TN Zip 37203

Date 7/23/92

*I am by turns speechless,  
livid, furious, frustrated,  
and limp. What the hell  
business is it of the P.O.?*

  
Signature

didn't. The decision was formulated in Washington, and after being flabbergasted by their effrontery, I became enraged on principle.

After I calmed down a little, I wrote out a check and sent in my subscription—again on principle, since as editor I can get all the free copies I want, within reason, of course. This way, we're all in it together. Of course, again, we are all, veteran and non-veteran members alike, in it together anyway as vassals of the Washington bureaucracy. After I calmed down a little bit more, I rang up Mr. Williams to find out what the hell was going on. It was, he said, that we are giving away 18% of our copies of the *Journal*, and the Postal Service allows us to give away only 10%. Furthermore, they allowed, subscribers must pay at least 50% of the subscription price. Since most of the free subscriptions go to veteran members, that service to us old folks had to be discontinued. So, I asked him, what the hell business is it of the Postal Service how many journals we give away? His answer was that they set the rates.

That didn't answer my question. Whose postal service is it anyhow—theirs or ours? I guess, from their arbitrary ruling, the answer to that is obvious: it ain't ours. Not only that; the government in Washington is neither of the people, by the people, nor for the people. It is of, by, and for only the people in power. And that, friends and colleagues, does not include, except in rare instances, you, and certainly not me. Even a casual observation of how the government regulates our lives will demonstrate that it no longer governs by the Constitution, and desperately needs replacing. The Congress makes laws, and exempts itself every time, being answerable to nobody, not even to itself. Its absolute power has corrupted it absolutely. Is it any wonder, then, that a very sizeable segment of our citizenry should want to start all over again? It would be a wonder for me if they did not. Indeed, it is a wonder to me that everybody doesn't.

On the other hand, despite my distaste for current choices, I was not only not sure that Mr. Perot would offer substantive improvement; I am not even persuaded that the top is the place to start, though the place where I think the starting place is may be inviolable. The citizenry of the now-defunct Soviet Union is finding the bastions of the Soviet system to be the party functionaries, who are proving very difficult to dislodge. In the same way, it is our Civil Service that really runs things, and by law they cannot be displaced. It is also, because of patronage, very difficult to evict an incumbent; there is, to boot, the assumption that the devil you know is better than the devil you don't know.

Therefore: It is none of the government's business how many of its journals a free, dues-paying organization gives away. Nevertheless, the government says we can give away only 10%, we will give away only 10%. The gov'mint giveth, and the gov'mint taketh away. "Right" has nothing to do with it. There is no recourse. My Mother would have called them Meddlesome Matty.

Alas!

J.B.T.

## The Health Care Crisis

One of man's most pervasive, and to my way of thinking most annoying, if not actually perilous, inclinations is monkeying with the system—any system—whether or not it's broken. Darwin's hypothesis of natural selection, which says, in a gross oversimplification, that when the going gets tough, only the tough keep going, and that survival characteristics are genetically determined, spawned an almost immediate movement in Europe, particularly Central Europe, though not exclusively in either, to breed a master race of human beings. It would of necessity be Teutonic, of course—or, much later, "Aryan," according to Hitler and Himmler. The results of the experiment have been well documented. (The notion of a master race antedated Hitler by several millennia; it's just that Darwin's thesis gave it a respectability of sorts.)

Still tinkering, we have now turned the situation around so that individuals once unable to survive are now not only able to do that, but to procreate as well, and to pass their once lethal genes on to their progeny. I am not making a moral judgment here one way or the other; this is only a statement of how it is. I'm relatively certain that those whose parents had such lethal genes think it a blessing. I should think that the next step, looking down the road a piece, where all the various potholes are shrouded in haze, would be to amputate all those lethal genes, so that we can finally construct our super-race the scientific way, provided, of course, we can get any agreement at all on the race's characteristics.

And if we can afford it.

All the while man has been picking his way through all those moral mine-fields, microorganisms have been gamboling merrily along over the green, or wherever, unhampered by vapid moral considerations—or any other considerations, for that matter. (I don't mean to imply that moral considerations are necessarily vapid. But they do slow down the pro-



cess—which isn't in itself necessarily bad, either.) To get back to the bugs, they have just been doing what comes naturally—which is what Darwin was talking about in the first place. Put up a roadblock in the form of prophylaxis or treatment, and they will begin looking for a way around it. What's more, experience in the infinitesimally brief tick of the biological clock that we have been able to observe their comings and goings has indicated that they will usually find it. So caught up is mankind in its own brilliance that it is usually astounded to find, when it occasionally catches a glimpse past its own nose, that Nature, on which the microorganisms depend, is at least as smart. I therefore find it incredible that anyone should express wonderment that such things as tuberculosis, measles, mumps, rubella, syphilis, and rabies should be staging a comeback. I also find it unbelievably naive, even arrogant, to suggest that they were ever defeated. Down, maybe, but never out. Though I could be in error, I am unaware that has ever happened more than once.

The headlines a decade or so ago proclaimed to an expectant world that smallpox had at last been conquered for all time, and that all experimental strains could, and indeed had better, be destroyed; vaccination would no longer be necessary anywhere in the world. It came a few centuries too late to help the indigenous population of the Western hemisphere, which smallpox, a legacy of the white invaders, had succeeded in decimating. But it was a start toward a world freed of the scourge of infectious disease, which a lot of investigators were so confidently predicting. That was before AIDS (BA).

It was also before a lot of other things. As it turned out, the smallpox virus was an anomaly. The virus never showed any tendency to mutate, and it had no intermediate host, being exclusively a human parasite. Since it, like viruses generally, was unresponsive to all known therapeutic agents, and for practical purposes impervious once it got inside a cell, developing drug resistance was not a problem. The sole hindrance to its spread was prophylaxis, and Dr. Jenner's gift to humanity proved the virus' undoing. So far, that virus stands alone. The best we can do otherwise is mitigate to varying degrees the effects of certain viral infections, sometimes by immunization and occasionally by various therapeutic agents. Although bacteria march to an entirely different and generally more pliable drummer, they have shown a remarkable resilience under attack, and while control has often been possible to varying degrees, eradication has proved uniformly elusive.

The Department of Health Report carried elsewhere in this *Journal* presents the current status of

health care in this state as seen through the eyes of a health officer. It differs in only minor essentials from the situation reported in the nation at large, which this report also addresses. I have a few quibbles with Dr. Smith, the report's author, which are mostly picayune, and several quarrels. I shall enlarge on some of the latter, and generally ignore the rest.

My first quarrel involves the categorization of health care delivery in this country as a non-system. I hasten to add that my quarrel is not with the categorization itself, but rather with the pathway to that categorization. Granting that nearly everything Dr. Smith says in that regard is more or less incontrovertible, the basis for the lack of a system is not poor health care at all. The problem is one of expectations. To quote yet once again medical economist Harry Schwartz, what the American people expect from their health care system is to live forever with full sexual powers, and at no cost to themselves. That is hyperbole, of course, but not by much.

The medical care generally available in this country is to be found in only a few centers anywhere else in the world. Much of it is very costly, both there and here. We are able, for instance, to transplant successfully, albeit at great expense, most organs in the body. Sometimes that expense will be met, at least for the most part, by some third party. Other sufferers are able, through good press coverage and dedicated friends, to wheedle the necessary funds from a charitable citizenry. The point is, though, that not only do all those who need such a procedure want it, they also expect it, and feel cheated when it turns up unavailable. It is in this very important way that the citizenry in this country differs from that in every other country on the globe. In countries where there is a national health service, the individual is simply told, perhaps without even being given a reason, that the system cannot afford it, or that there is a wait of 6 or 12 or however many months—by which time the suppliant will likely be dead. So what does he do? He sets his affairs in order. Or else, if he can afford it, he comes to the United States. Everybody accepts the concept of insufficient funds, but in this country they accept it only as it affects somebody else.

All that is how the situation was in the days BA. AIDS has changed a lot of things. Until the last few months, the public has been misled, I believe mostly by an overzealous media, to believe that either successful treatment or immunization or both were just around the corner. The latest word from the CDC is that neither is likely to appear for a long, long time. Like the influenza virus, the human immunodeficiency virus (HIV) has the capacity for altering its structure sufficiently to frustrate efforts to neutralize



it, and though early treatment has been able to maintain adequate lymphocyte counts for sometimes extended periods, the outcome is ultimately dismal and uniformly fatal. The effect this will have on health care financing and delivery will unquestionably be devastating. None of that has anything whatever to do with the health care system.

Another quarrel I have with Dr. Smith concerns what he refers to as strategies. Actually, though everything he advocates is very desirable, and will, if adhered to, doubtless do all sorts of good things for the public, those aren't "strategies"; together they form a strategy. That strategy is to try and persuade the citizenry to straighten up and fly right. And that, if previous experience is any indication, will take more than a little doing. Bad habits are certainly a critical part of the health care crisis, but they too have nothing at all to do with the system, or the lack of it. They have to do with human nature, more particularly human nature as it is expressed among the citizens of the United States of America, who express it a whole lot differently than the citizens of some, if not most, or even all, other places do.

A final word. In speaking of the escalating cost of medical care, which Dr. Smith allows is limiting availability of funds for such *important* things as education, adequate housing, nutrition, and family support, I can only say that the citizenry needs to set its priorities, and decide whether it wants all the high-technology medical procedures more or less than it wants all those other things, and how much more or less. It is not, after all, the routine medical care that makes the costs rise faster than inflation; what makes the costs rise so fast is medical advances and the research that led to them, among them the several billion dollars it is going to take to complete the gene-mapping program that will allow us to discover and amputate all those lethal genes we were speaking of earlier.

There is, besides all that, one thing more. I'm sure the bureaucracy would never consent to it, as it would unquestionably prove an embarrassment to government, but it would be interesting and educational to their constituents if all those reports that are so widely quoted would reveal the contribution of all that trivial, meddlesome governmental regulation to the cost of medical care. OSHA alone has added incalculably to it. My dentist allowed as how he has added an OSHA surcharge to his bill of \$15 a patient visit, which will increase the cost of a prophylaxis by 50%. Of course, dentists can make such increases. For us medical docs, it is forbidden by law.

Viewed dispassionately, if dispassionate viewing is possible in the face of intense suffering and death,

the next few years should prove medically challenging and interesting. It is Dr. Smith's contention that the present health care system is going to be unable to cope with the challenge of AIDS, teen pregnancy, drug abuse, and intentional injury. I question whether any other system can handle the situation any better, and perhaps even as well. It is distinctly unclear to me that the presence of these or any other challenges has anything to say at all, one way or another, about the adequacy of the present health care system. I have a challenge of my own, couched in his own words, that I'd like to pose for Dr. Smith: please do set about getting the citizenry to begin applying our collective will, together with our resources. I can only agree with Dr. Smith that if that collective will is what Dr. Smith implies it is, applying it with the resources at hand would certainly be to the betterment of our citizens' condition, and it might even indeed go a long way toward solving our problems. But the knee-jerk reaction I have been seeing out there is slash and burn, whether it be the environment or each other, and so I am going to wait and see what happens when we apply our collective will, assuming there is such a thing, along with our resources, to whatever it is we decide we are going to apply them to.

J.B.T.



*Dewitt B. James*, age 69. Died July 20, 1992. Graduate of Tulane University School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

*Harcourt Alexander Morgan Jr.*, age 82. Died July 28, 1992. Graduate of University of Tennessee College of Medicine. Member of Marshall County Medical Society.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### **BRADLEY COUNTY MEDICAL SOCIETY**

*Brenda Snowman, M.D.*, Cleveland

### **CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY**

*Lane Griggs, M.D.*, Chattanooga

*R. Bradley Mock, M.D.*, Chattanooga

*Christopher S. St. Charles, M.D.*, Chattanooga

*Steven L. Watkins, M.D.*, Chattanooga



## FENTRESS COUNTY MEDICAL SOCIETY

*Jonathan David Allred, M.D., Jamestown*

## MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

*Milton Ralph Barrett II, M.D., Memphis*

*Charles H. Brown, M.D., Memphis*

*Michael Counce, M.D., Memphis*

*Robert Crone, M.D., Memphis*

*Richard Fleming, M.D., Memphis*

*Meredith Lynn Mahan, M.D., Memphis*

*Ronald C. Michael, M.D., Memphis*

*James R. Mitchum, M.D., Memphis*

*Calvin J. Mullins, M.D., Memphis*

*Devaiah Pagidipati, M.D., Germantown*

*David Hollis Reid, M.D., Cordova*

*Norman Terry Soskel, M.D., Germantown*

## SULLIVAN COUNTY MEDICAL SOCIETY

*Gregory Michael McNamara, M.D., Kingsport*

## WASHINGTON-UNICOI-JOHNSON COUNTY MEDICAL ASSOCIATION

*Robert J. DeTroye, M.D., Johnson City*

*Karen E. Fleenor, M.D., Johnson City*

## personal news

*Wayne Kim, M.D., Chattanooga*, has been certified as a Diplomate of the American Board of Psychiatry and Neurology in the subspecialty of Geriatric Psychiatry.

*Thomas C. Krueger, M.D., Springfield*, has been certified as a Diplomate of the American Board of Surgery.

*Francis Murphey, M.D., Memphis*, has received the Distinguished Service Award from the Society of Neurological Surgeons.

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

- |            |  |
|------------|--|
| Nov. 5-7   | Southern Thoracic Surgical Association—Saddlebrook, Wesley Chapel, Fla.              |
| Nov. 6-12  | Association of American Medical Colleges—Hilton, New Orleans                         |
| Nov. 9-13  | American Society for Therapeutic Radiology and Oncology—Convention Center, San Diego |
| Nov. 10-14 | American Cancer Society—Marriott Marquis, Atlanta                                    |
| Nov. 11    | Southern Association for Geriatric Medicine—Marriott Rivercenter, San Antonio        |
| Nov. 12-15 | Southern Medical Association—Marriott Rivercenter, San Antonio                       |
| Nov. 13-17 | American Academy of Physical Medicine and Rehabilitation—Hilton, San Francisco       |
| Nov. 14-18 | American College of Allergy and Immunol-   |

## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during July 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

*Arthur R. Cushman, M.D., Madison*

*Stanley J. Dressler, M.D., Chattanooga*

*Eric P. Ellington, M.D., Maryville*

*William E. Elliott, M.D., Maryville*

*William E. Foree Jr., M.D., Athens*

*Lawrence G. Gardner Jr., M.D., Memphis*

*Jamshed U. Haq, M.D., Knoxville*

*John P. Hendrick, M.D., Cleveland*

*Ray W. Hester, M.D., Nashville*

*Cary G. Hodnett, M.D., Chattanooga*

*Maxwell E. Huff, M.D., Oneida*

*John P. McMurry, M.D., Knoxville*

*Alvin H. Meyer Jr., M.D., Donelson*

*Charles E. Morton III, M.D., Nashville*

*James A. Ramsey, M.D., Brentwood*

*William T. Rawlinson, M.D., Memphis*

*Mary P. Schatz, M.D., Brentwood*

*Ronald L. Terhune, M.D., Memphis*

*Dean M. Turner, M.D., Knoxville*

*John A. Worrell, M.D., Nashville*

- |                |  |
|----------------|--|
| Nov. 14-18     | ogy—Hyatt Regency, Chicago   |
|                | American Geriatrics Society—Hilton and Towers, Washington, D.C.  |
| Nov. 19-22     | National Perinatal Association—Buena Vista Palace, Orlando   |
| Nov. 27-Dec. 4 | Radiological Society of North America—McCormick Place, Chicago   |
| Nov. 29-Dec. 4 | American Association of Women Radiologists—McCormick Place, Chicago  |
| Dec. 2-5       | California Seminars in Pathology (sponsored by Calif Soc of Pathologists)—Park Fifty Five Hotel, San Francisco |
| Dec. 4-6       | American Academy of Psychiatrists in Alcoholism & Addictions—Sheraton El Conquistador, Tucson                  |
| Dec. 4-8       | American Society of Hematology—Anaheim, Cal.   |
| Dec. 4-10      | American Epilepsy Society—Westin Hotel, Seattle  |
| Dec. 19-Jan. 2 | Medical-Legal Seminar (sponsored by Pittsburgh Inst of Legal Medicine)—Kea Lani Hotel, Maui                    |

#### STATE

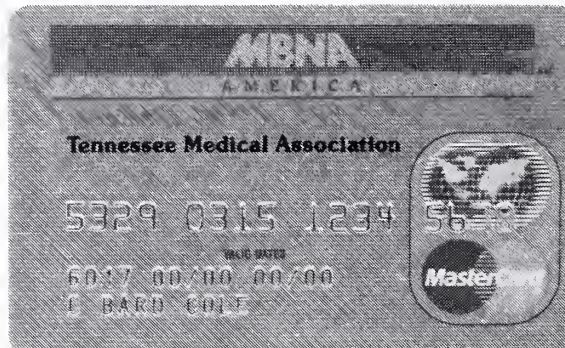
- |            |   |
|------------|---|
| Nov. 15-20 | Association of Military Surgeons of the United States—Opryland Hotel, Nashville |
|------------|---|



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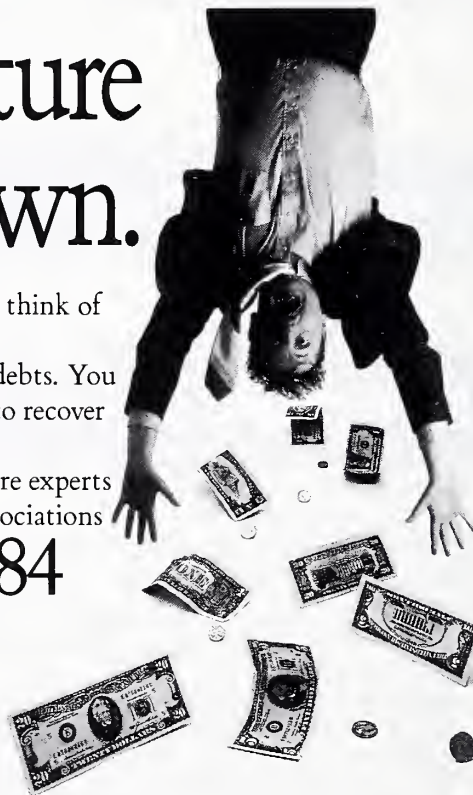
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# Highlights of the TMA Board of Trustees Meeting

July 12, 1992

The following is a summary of the major actions taken by the Board of Trustees of the Tennessee Medical Association at its regular third quarter meeting in Nashville, July 12, 1992.

## THE BOARD:

### Commendation for Dr. Chalfant

Presented Dr. Robert L. Chalfant a plaque in honor and appreciation for his 21 years of service to the TMA Student Education Fund.

### Committee on Governmental Medical Services and Third Party Payors

Established the following four subcommittees of the TMA Committee on Governmental Medical Services and Third Party Payors: (1) Medicare, (2) Medicaid, (3) Third Party Payors, (4) PRO Oversight.

### Committee on Rural and Community Health

Approved a request by the Committee on Rural and Community Health to develop a health and well-being curriculum for the Tennessee 4-H Club program as requested by the University of Tennessee Agricultural Extension Service.

### Sports Medicine Committee

Appointed Dr. Thomas Templeton, Chattanooga, to the Sports Medicine Committee.

### Continuing Medical Education Committee

Appointed Drs. Frank L. White, Memphis, and Phillip Bertram, Cookeville, to fill vacancies on the Continuing Medical Education Committee. Also directed the CME Committee to develop an accreditation fee schedule designed to allow TMA to recover the direct costs of the program.

### Quarterly Reports

Received reports from SVMIC, IMPACT, the Tennessee Medical Foundation, and the AMA Delegation from Tennessee.

### State Appointments

Agreed to nominate the following physicians for appointment to: (1) Medicaid Drug Utilization Review Board—Drs. Carl T. Duer, Crossville, Stephen Schillig, Nashville, Edward Hills, Nashville, Richard Lane, Franklin, Jerome McKenzie, Knoxville, Scott Morris, Memphis; (2) Advisory Committee for Crippled Children's Services—Drs. Robert C. Coddington, Chattanooga, Allen S. Edmonson, Memphis; (3) Community Health Agency Advisory Council—Dr. Bobby J. Smith, Dickson; (4) Medicaid Medical Care Advisory Committee—Dr. Joel Pedigo, Clarksville; (5) Board of Dietician and Nutritionist Examiners—Drs. R. Wayne Luther, Memphis, Glenn Booth, Nashville, Allan Bailey, Nashville.

### Report From Board of Medical Examiners

Received a report on the Board of Medical Examiners from Dr. Godfrey Vaz. Dr. Vaz reviewed plans to implement a two-year license renewable on the birth date of the physician; he requested TMA's help in creating an inactive status for physicians.

### Medicaid Meeting With Governor McWherter

After receiving a report on a meeting between the Governor and various health-related organizations, the Board established a task force to respond to the Governor regarding Medicaid funding cost control and Medicaid reform measures.

### Resolution on Preventive Medicine and Healthy Lifestyles

Directed the Tennessee Delegation to the AMA to introduce a resolution requesting the AMA to assist in educating the nation's children on preventive medicine and positive healthy lifestyles in grades K-12.

### Annual Meeting

Adopted as policy a set of recommendations made by the Annual Meeting Committee of the Board. Appointed a Task Force on Annual Meeting Design to address the problems associated with the Annual Meeting and to look at restructuring the entire format in order to improve the meeting.

### Medical Staff Privileges For Nurse Midwives

Requested staff to communicate with the Board for Licensing Health Care Facilities TMA's opposition to proposed regulatory changes granting hospital privileges to nurse midwives.

### Financial Statement

Approved the Second Quarter Financial Statement as presented.

### TMA Journal Mailing List

Agreed to begin assessing an annual subscription rate of \$10 for the *Journal of the Tennessee Medical Association* to veteran and retired dues-exempt members, with student members receiving complimentary subscriptions.

# American Medical Association

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### AMA Backs Regulatory Relief, Anti-Hassle Legislation

The American Medical Association continues to lobby for Medicare physician regulatory relief amendments introduced in the House as HR 2695 and in the Senate as S1332, to cutback on Medicare hassles. In short, legislation addresses:

- **Medicare Secondary Payor:** prohibits payment denials for necessary covered services if the patient fails to complete questionnaires.
- **Extrapolation:** gives physicians the option of requiring carriers to produce evidence of a pattern of payment error.
- **Carrier User Fees:** prohibits charging for paper claims, filing errors, unsuccessful appeals, applications for unique provider numbers and medical review requirements.
- **Annual Carrier Evaluations:** requires state medical society input on evaluation standards and requires this to be included in annual carrier performance evaluations.
- **Medicare Carrier Accountability:** allows administrative appeals when the carrier improperly implemented Medicare policy.
- **Physician Peer Review:** requires all Medicare medical necessity denials be reviewed by identified, appropriately licensed physicians of the same specialty.

All provisions were included in a separate package of Medicare amendments approved by the House Energy and Commerce Committee. The AMA will continue to work to advance this legislation prior to adjournment.

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### AMA Recommends Medicare RBRVS Updates

The 26-member American Medical Association Specialty Society Update Committee, or RUC, presented its first recommendations to HCFA. These address relative values for 253 new or revised CPT codes and are intended to

help HCFA as it develops the 1993 Medicare fee schedule. The AMA views RUC's update activities as central to implementation and maintenance of the RBRVS.



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# AMA and Professionalism: the Structure of Self-Regulation

Medical education and residency training in this country are generally viewed as both the best, and the least governmentally regulated in the world.

Why? Because the American Medical Association established, and today staffs, the two voluntary and national accreditation agencies for medical education and residency: the Liaison Committee on Medical Education (with the AAMC), which accredits and sets standards for all United States medical schools, and the Accreditation Council for Graduate Medical Education, which accredits all of the country's residency programs.

Last year, the Food and Drug Administration's proposed rules dealing with drug company sponsorship of continuing medical education could have put an end to even the most valuable, scientifically objective programs.

This year the rules were withdrawn.

Why? Because a professional accreditation process which the American Medical Association conceived of helps to govern through the Accreditation Council for Continuing Medical Education, stepped in with its own more rational rules and a credible plan to achieve compliance.

Early in the 1980's, Congress created a Federal medical ethics panel that was supposed to establish national standards

for physician conduct on a variety of complex physician-patient ethical issues.

This panel remains virtually dormant; there is little federal or state legislation on medical ethics.

Why? Because the American Medical Association's Council on Ethical and Judicial Affairs has forcefully dealt with each emerging ethical dilemma within the profession, no matter how controversial. The Council has issued strong guidelines on sexual harassment, gender and racial disparities in health care, HIV patient treatment and testing, withdrawal of life support, assisted suicide, gifts from industry, genetic testing and many other issues.

Similar stories can be told about the AMA's central role in establishing hospital standards, national licensure examinations, standards of practice and risk management.

**Because the American Medical Association has been and is there—establishing and maintaining uniform standards within the profession, inappropriate interference in many areas has been defeated.**

There is great power in professionalism; the AMA was created to be its foundation within the profession. Because of the AMA, you still retain a substantial degree of freedom to do what you believe is best for your patients.

TMA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) as a sponsor of continuing medical education for physicians. Nonaccredited organizations may request TMA's joint sponsorship of CME activities. As an accredited sponsor, TMA is authorized to designate certain CME activities for credit in the AMA Physician's Recognition Award Program.

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

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#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Nov. 7-8	2nd Annual Symposium on Color Doppler Sonography—Atlanta
Dec. 3-5	Lasers in Otolaryngology: Head and Neck Surgery
Dec. 11-12	18th Annual High Risk Obstetrics Seminar
Jan. 31-Feb. 5	Practical Aspects of Diagnostic Radiology/Medical Imaging VI—Snowmass Village, Colo.
Feb. 28-Mar. 5	Infectious Diseases—Snowmass Village, Colo.
March 1-2	Vanderbilt/Tennessee Annual Perinatal/Neonatal Meeting

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

Nov. 9-13	Advances in Medicine—Bermuda
Nov. 12	Update: Preventive Strategies in Patient Care
Nov. 13	Supportive Care in Oncology
Nov. 13-14	College of Medicine Alumni Weekend
Nov. 19-21	Society for Human Ethics and Values
Nov. 20-22	11th Annual Gynecologic Surgery Seminar
Dec. 4-5	Laparoscopic Hysterectomy: Hands-On Training Workshop
Jan. 14-17	Hypertension in Pregnancy
Jan. 15-16	Laparoscopic Hysterectomy: Hands-On Training Workshop
Feb. 8-11	Update in Obstetrics and Gynecology—Grand Cayman Island
Feb. 14-19	Clinical Medicine—Kauai, Hawaii
Feb. 19-20	Laparoscopic Hysterectomy: Hands-On Training Workshop
Feb. 20-21	Radiology Conference
Feb. 25-27	Seating the Disabled
March 6-13	Surgical Gynecology and Obstetrics—Steamboat Springs, Colo.
March 13-19	26th Annual Review Course for the Family Physician
March 25-27	Southern Society for Research in Psychiatry
April 1-3	Symposium on Critical Care & Emergency Medicine—Hot Springs, Ark.
May 6-7	Update 1993
May 6-7	General Surgery Update
July 31-Aug. 7	Contemporary Issues in Obstetrics and Gynecology



Sept. 8-10      cology—Destin, Fla.  
25th Memphis Conference on the Mother,  
Fetus, and Newborn

**Chattanooga**

Nov. 20-21      Internal Medicine Update

**Knoxville**

Nov. 6-8      14th Annual Otolaryngology Course for Pri-  
mary Care Physicians—Gatlinburg

Nov. 19-20      9th Annual Alzheimer's Disease Sympo-  
sium—Gatlinburg

For information contact Mrs. Jean Taylor Bryan, Office of  
CME, University of Tennessee, 800 Madison Ave., Memphis,  
TN 38163, Tel. (901) 528-5547.

## IN SURROUNDING STATES

### WASHINGTON UNIVERSITY—MISSOURI

Nov. 5-8      ISACB 3rd Biennial Meeting: Toward Appli-  
cation of Advances in Basic Cardiovascular  
Biology

Dec. 5      Hypertension

Dec. 12      Management of Hypercholesterolemia

Feb. 27      Women and Men in Health Care

March      Malpractice

March 27-29      Aesthetic Plastic Surgery: Facial and Body  
Contouring

For information contact Cathy Caruso, Office of CME,  
Washington University School of Medicine, Box 8063, St.  
Louis, MO 63110, Tel. (800) 325-9862.



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## FAMILY PRACTITIONERS

Rural community health centers located in beautiful mountains of northeast Tennessee are accepting CVs from Family Practitioners for a staff physician position at the Bluff City Medical Clinic in Sullivan County. Guaranteed salary with excellent benefits including paid malpractice insurance, continuing education assistance, a retirement program, and moving expense allowance. Approved loan repayment site.

Contact Ms. Taunja Bogart, Rural Health Services Consortium, 4389 Highway 11-E, Bluff City, TN 37618. Phone: (615) 538-3138. (EOE)

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# *Pregnancy Following Mustard Operation for Transposition of Great Arteries*

UCHENNA C. NWOSU, M.D.

## **Introduction**

The Mustard operation for correction of transposition of great vessels consists of atrial switch procedure without closure of an existing ventricular septal defect, or of creation of ventricular septal defect when one is not present. Alternatively, the pericardium or prosthetic material is used to create a baffle positioned to divert systemic venous blood from the vena cava into the left atrium, mitral valve, left ventricle, and posterior pulmonary artery.<sup>1</sup> Although it is a relatively new childhood operation, female patients who underwent this procedure are now coming into reproductive age. Since only limited experience has been acquired with pregnancy following this procedure, the basis for counseling these patients is largely theoretical at the moment. We report our experience with a pregnancy following this operation.

## **Case Report**

The patient was a 25-year-old white gravida 1, para 0 referred at 23 weeks' gestation for frequent episodes of lightheadedness, tiredness, and "skipping beats." Her past history included corrective surgery for the transposition of the great vessels (Mustard procedure), atrial fibrillation with sick sinus syndrome, congestive heart failure with cardiomegaly, and in-

section of a permanent pacemaker. She had also had left nephrectomy and cholecystectomy. She denied recent history of dyspnea on mild exertion, but admitted to dyspnea on climbing six to eight steps.

A review of her medical records showed that she was advised by her cardiologist "never to get pregnant," but the patient interpreted this to mean that she "could never get pregnant." Physical examination revealed an asthenic gravida in no apparent distress. Her blood pressure was 94/42 mm Hg, pulse 64/min, and respiratory rate 20/min. She had normal jugular venous pulses and no carotid bruit. The central venous pressure was estimated at 5 cm H<sub>2</sub>O. The chest was clear to auscultation and percussion, and cardiac examination revealed a split first heart sound. The second heart sound was widely split, but moved with respirations. A soft systolic regurgitation murmur was noted over the apex, representing either tricuspid or mitral valve insufficiency. The cardiac impulse was displaced somewhat laterally. The extremities were free of edema distally; distal pulses were 2+/4 and symmetrical.

Sonography revealed a single live fetus in breech presentation, an anterior placenta, and an amniotic fluid volume considered normal for this stage of pregnancy. The biometric indices gave an estimated fetal age of 21 weeks 4 days, with estimated fetal weight of 448 gm by the Hadlock's table.

The patient was admitted for telemetry and cardiac consultation, and given her usual medications, consisting of quinidex extentabs, digoxin, furosemide, and micro-K. During the admission her pulse rate was adjusted to activity mode between 70/min and 100/min. Fetal echocardiography detected no abnormalities. Abnormal laboratory findings included creatinine clearance rate of 59 ml/min, and an unexplained anemia (hemoglobin 9.3 gm/dl). Chest x-ray revealed a normal heart size with the main pulmonary vessels somewhat enlarged. She was discharged after four days on her usual medications and readmitted 11 days later because of regular premature uterine contractions. Vaginal examination revealed a closed, firm cervix; the external fetal monitor showed uterine contrac-

From the Department of Obstetrics and Gynecology, James H. Quillen College of Medicine, East Tennessee State University, Johnson City.

Reprint requests to Department of Obstetrics and Gynecology, James H. Quillen College of Medicine, PO Box 70569, Johnson City, TN 37614 (Dr. Nwosu).

tions every three to four minutes. Repeat ultrasound scanning revealed good interval growth, with estimated fetal age now 24 weeks 2 days, and good fetal activity. She was given indomethacin orally 25 mg every four hours for three doses, then 25 mg rectal suppository every four hours. Her uterine contractions were abolished after two days, and she was again discharged on her cardiac medications plus indomethacin.

She was readmitted four days later with strong regular uterine contractions, which were not stopped by the indomethacin. Due to her poor creatinine clearance it was decided to commence MgSO<sub>4</sub> tocolysis with only 2 gm loading dose and 1 gm/hr maintenance, but the patient refused the infusion. We did not give a  $\beta$ -adrenergic agent for fear that the resultant tachycardia might overtax the heart and precipitate a congestive cardiac failure. Over the next 24 hours she slowly progressed to 3 cm cervical dilatation with full effacement, and variable decelerations with decreasing beat-to-beat variability were noted. Under epidural anesthesia she was delivered by classical cesarean section of a 741-gm live female infant with 1' and 5' Apgar scores of 4 and 6, who afterward developed pulmonary interstitial emphysema on conventional Bearcub respirator and had to have a jet ventilator three to four hours after delivery. In spite of multiple neonatal complications, including severe respiratory distress syndrome with pulmonary interstitial emphysema and multiple pneumothoraces, plus grade 4 intraventricular hemorrhage the baby was discharged after 60 days in satisfactory condition.

## Discussion

The Mustard operation is associated with cardiac rhythmic disturbances often requiring a pacemaker. Recurrent cardiac failure as well as other hemodynamic abnormalities are also a part of this condition.

Perhaps the most interesting feature of our case was the benignity of the cardiac disease during the

pregnancy, albeit it was prematurely terminated by preterm labor. In two other reported cases of pregnancy that went to term after the Mustard operation, cardiac decompensation occurred at term in association with atrial fibrillation in one case,<sup>2</sup> while in the other the pregnancy was uncomplicated.<sup>3</sup>

When a pacemaker is present, early and regular adjustments are needed to reflect the normal evolution of pulse rate (and cardiac output) during pregnancy. Absence of uteroplacental insufficiency in this case in spite of a pulse rate of 60/min during the first 24 weeks is surprising and suggests an excellent ventricular function, with cardiac output maintained through high stroke volume.

Sufficient experience had not yet been gained relative to the use of tocolytic agents in patients who have had the Mustard procedure. We assumed that  $\beta$ -adrenergic agonists would produce unacceptable maternal tachycardia, and our choice was limited to indomethacin and magnesium sulfate.

In summary, sufficient information for counseling is not yet available on pregnancy following the Mustard operation. Based on our present experience it would appear that pregnancy is not contraindicated when close monitoring is available.

## REFERENCES

1. Mustard WT: Successful two-stage correction of transposition of the great vessels. *Surgery* 55:469-472, 1964.
2. Neukermans K, Sullivan TJ, Pitlick PT: Successful pregnancy after the Mustard operation for transposition of the great arteries. *Am J Cardiol* 62:838-839, 1988.
3. Warnes CA, Somerville J: Transposition of great vessels: late results in adolescents and adults after the Mustard procedure. *Br Heart J* 58:148-155, 1987.

## HELP FOR IMPAIRED PHYSICIANS

Through its Committee on Impaired Physicians, TMA helps doctors who are suffering from alcoholism and drug addiction. The thrust of the program is rehabilitative, not punitive. The Committee is composed of physicians who have special expertise in these areas, some from personal experience. Effective treatment for these illnesses is achieved most easily when the disease is detected early; family, friends, and associates are urged to avoid misguided sympathy which enables the condition to deteriorate.

### HELP US TO HELP

Call the TMA Impaired Physician Program (615) 385-3319; outside Nashville call collect. Telephone message service available around the clock.



# Monoamniotic Twin Gestations

MARTIN E. OLSEN, M.D.

## Introduction

Monoamniotic twin gestations, in which both twins are in the same sac, are rare. The exact incidence is unknown.<sup>1</sup> A high rate of perinatal mortality is associated with monoamniotic twinning due to the risk of cord entanglement and knotting. This report describes two patients with monoamniotic twin gestations. The first patient's pregnancy resulted in survival of both twins, while that of the second resulted in intrauterine death of twin B and survival of twin A.

## Case Reports

**Case No. 1.** A 20-year-old white gravida 2, para 1001, with known twin gestation was admitted to the labor and delivery unit at 36 weeks for elective induction of labor. She had been seen in the prenatal clinic on the day of admission with her cervix 4.5 cm dilated. She was considered at risk for spontaneous rupture of membranes at home with possible subsequent tumultuous delivery, and had therefore accepted elective induction of labor.

The patient had received multiple ultrasound evaluations of the fetuses during her pregnancy to document concordance of the twins. Although the twins had been found to be concordant throughout the pregnancy, the ultrasound examiners did not document either the presence or the absence of a dividing membrane between the twins.

On admission, both fetuses had reassuring fetal heart rate tracings, and a real-time ultrasound evaluation confirmed cephalic/cephalic presentation. The patient's cervix progressed to complete dilation approximately 90 minutes after elective amniotomy.

Twin A was delivered spontaneously over a midline episiotomy, with Apgar scores of 8 at one minute and 9 at five minutes. The second fetus was in the vertex position; no second amniotic sac existed. Coils of intertwined umbilical cord protruded from the vagina. When the fetal heart rate of twin B dropped to 90/min, the mother was encouraged to push, and twin B was delivered seven minutes after the delivery of twin A. Twin B's Apgar scores were 4 at one minute and 8 at five minutes. Both neonates were female; twin A weighed 5 lb 7 oz, twin B weighed 5 lb 4 oz. Both were transferred to the normal newborn nursery.

The single monoamniotic placenta was delivered spontaneously; the cords exhibited two true knots as well as many coils.

**Case No. 2.** A 22-year-old white gravida 2, para 1001 was transferred from an outlying facility at 29 weeks' gestation; the

death of twin B was known prior to the transfer for preterm labor and preeclampsia. Evaluation on arrival revealed complete cervical dilation and a blood pressure of 165/111 mm Hg. Proteinuria was 2+. Ultrasound evaluation demonstrated a cephalic presentation of twin A and a transverse one of twin B. Twin B was dead. Platelets were 300,000/cu mm, PT was 11.0 seconds, PTT 34 seconds, fibrinogen 360 mg/dl, and fibrin split products 10 to 40 µg/ml. These values were all normal; liver enzyme levels were also normal.

The patient was given a magnesium infusion for seizure prophylaxis, and shortly after her arrival, normal spontaneous vaginal delivery of twin A occurred, with Apgar scores of 8 and 9. The female infant was transported to the newborn intensive care unit in stable condition; the infant's weight was 1,120 gm. Twin B was also delivered vaginally from a right transverse position. This stillborn female was severely macerated but appeared anatomically normal. Evaluation of the fetus and placenta revealed monoamniotic placentation with knotting of the umbilical cords as the apparent cause of death of twin B (Fig. 1).

The patient's postpartum course was unremarkable, and her blood pressure dropped appropriately. She was discharged to home on the second postpartum day. The infant was transferred back to the referring institution on day 19 in good condition.

## Discussion

Quigley<sup>2</sup> performed the first American review of monoamniotic twinning in 1935, reporting a fetal mortality rate of 68%. More recent reports have placed the mortality rate at 29% to 41%.<sup>1,3</sup>

Monoamniotic twins are thought to comprise 1% to 2% of monozygotic twins. It is generally believed to result from postimplantation splitting of the blastocyst at days 9 to 12. Diamniotic monozygotic twins



**Figure 1.** Placenta and stillborn twin B discussed in case 2. Knotting of the umbilical cords is evident.

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are formed by earlier splitting of the blastocyst, while later divisions result in conjoined twins.

Pseudomonoamniotic twinning may occur if two amniotic membranes are formed originally, with rupture of the intervening membrane occurring later in pregnancy. This has been documented.<sup>4</sup>

Monoamniotic twins have a propensity for being female, with a proportion of males at birth of 0.51 when total births are considered. The proportion of monoamniotic male twins, however, has been reported to be as low as 0.231.<sup>5</sup> Interestingly, over 95% of conjoined twins are female.<sup>6</sup>

Antepartum assessment of all twin gestations should include an ultrasound evaluation in which the presence or absence of a dividing membrane between the fetuses is determined. Ultrasonography can reliably distinguish a dividing amniotic membrane until the mid-second trimester, but it is a less definitive modality later in pregnancy. Third trimester diagnosis can be improved with sequential amniocentesis and installation of indigo carmine. With this technique, the indigo carmine is installed via a lower quadrant tap; an immediate upper quadrant tap is then performed. If blue-stained amniotic fluid is aspirated, amniography is subsequently performed to confirm the diagnosis. The technique of amniography involves the instillation of radiopaque dye into the amniotic cavity. In a monoamniotic twin pregnancy, x-ray studies would reveal dye covering the skin of

both fetuses.<sup>7</sup>

It must be recognized that a pseudomonoamniotic pregnancy could occur in pregnancies with a documented membrane between the fetuses if that membrane had ruptured.

The optimal management of confirmed monoamniotic twin gestations remains undetermined. Hospitalization with bed rest and daily non-stress testing has been recommended in order to avoid antepartum fetal death due to cord knotting.<sup>8</sup> Some authors believe that cesarean delivery is indicated for all monoamniotic twin gestations<sup>7,8</sup> and, in fact, elective delivery at 32 weeks' gestation has been recommended to avoid cord entanglement.<sup>8</sup>

Others have found that most fetal deaths occur before 30 weeks' gestation<sup>3,9</sup>; those authors would not recommend elective preterm delivery, but would consider vaginal delivery.<sup>3,9</sup>

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# Malignant Mixed Mullerian Tumor Of the Fallopian Tube of the Heterologous Type

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## Introduction

Primary malignancies of the fallopian tube are rare and account for less than 2% of all reported cases of genital malignancies.<sup>1-7</sup> By definition, the malignant mixed mullerian tumor (MMMT) contains both malignant epithelial and stromal elements. The stromal component may contain tissues homologous and/or heterologous to the mullerian duct system.<sup>1</sup> Primary MMMT of the fallopian tube is probably underreported due to the misdiagnosis of advanced stages of the disease at the time of presentation. Approximately 43 cases of primary MMMT of the fallopian tube have been documented in world literature.<sup>1-20</sup> A review of the reported cases since 1967 and those summarized by Jain,<sup>8</sup> Hanjani et al,<sup>1</sup> and O'Toole et al<sup>9</sup> reveals that heterologous type MMMT occurs even less frequently, with 20 reported cases in world literature. This case is the 44th reported case of MMMT and the 21st reported case of the heterologous type.

## Case Report

A 66-year-old insulin-dependent diabetic white gravida 4, para 3 went to her gynecologist complaining of three months of postmenopausal bleeding and a month of low back pain and abdominal fullness. Pelvic examination revealed a slight enlargement of the uterus. Endometrial tissue obtained by dilation and curettage was negative for any specific pathology. On a follow-up visit a week later, when the patient complained of increased menstrual-like flow, a right adnexal mass was palpated. Computed tomography of the pelvis and abdomen revealed a 4 × 4-cm right adnexal mass arising from the ovary and inseparable from the uterus. The left ovary was normal by palpation, and there was no ascites. There was extensive para-aortic lymphadenopathy extending from the origin of the superior mesenteric artery to the bifurcation. The patient was referred to a gynecologic oncologist for further evaluation and workup for a possible ovarian cancer. Exploratory laparotomy resulted in an abdominal hysterectomy, bilateral salpingo-oophorectomy, infracolic omentectomy, multiple peritoneal bi-

opsies, segmental sigmoid resection with end-to-end anastomosis, and selective pelvic and para-aortic lymphadenectomy; pelvic and abdominal washings were also done. Eight days after surgery, combination chemotherapy was started consisting of intravenous cisplatin 20 mg/sq m, ifosamide 1.5 gm/sq m, and mesna 1.5 gm/sq m each day for five days. Subsequently, the patient expressed her reluctance to continue aggressive chemotherapy, and declined further chemotherapy when seen as an outpatient three weeks later.

**Gross Description.** A portion of the sigmoid colon, the right tube and ovary, and an integrally attached mass was submitted en bloc to pathology. The colon segment with adherent fatty tissue measured 8.5 × 2.5 cm. There was a 5.8 × 3.8 × 4.7-cm mass bridging from the fimbriated end of the tube to the outer wall of the bowel. The distal end of the tube was filled with a gray-tan necrotic tumor mass. Where it abutted the colon wall, the lateral aspect of the mass was without induration or ulcerative or papillary changes to suggest bowel origin. The right ovary, which measured 4.4 × 1.4 × 1.5 cm, was separate from the mass. The uterus, with a 4.3-cm intramural and a 0.5-cm subserosal leiomyoma, weighed 127 gm. The left adnexa were grossly normal, with two parovarian cysts within the mesosalpinx and a 3.3 × 2.2 × 1.7 yellow-tan ovoid ovary. Forty-five lymph nodes were also submitted.

**Microscopic Description.** Histologically, the tumor displayed a high grade poorly differentiated malignancy with widespread necrosis. High grade adenocarcinoma predominated, with areas of undifferentiated sarcomatous change that had foci of metaplastic cartilage. Nests and strands of tumor cells extended into and through the right fallopian tube wall onto the serosal surfaces and laterally into the contiguous mesentery and serosa of the colon. Lymph nodes (18/45) from the right para-aortic and left common and external iliac regions were positive for malignancy. There was no evidence of carcinosarcoma involving the ovaries, endometrial cavity, the left fallopian tube, or the mucosa of the colon.

## Discussion

It is imperative to review the embryology of the female genital tract to understand the significant variation in histology of the MMMT. In contrast to the homologous type (carcinosarcoma), which contains stromal tissue indigenous to the mullerian duct system, heterologous tumors contain stromal components not normally associated with the mullerian duct systems, i.e., cartilage, bone, or striated muscle.<sup>1</sup> Ours is the 21st case of MMMT of the heterologous type arising in the fallopian tube.

To date, including this case, 44 cases of MMMT

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arising in the fallopian tube have been reported. O'Toole et al<sup>9</sup> summarized the comprehensive works of Wu et al (1973),<sup>10</sup> Jain (1977),<sup>8</sup> and Hanjani (1980)<sup>1</sup> in a table that distinguished between cases of heterologous and homologous type primary MMT of the fallopian tube. Table 1 summarizes the reported cases of MMT of the fallopian tube published to date. As pointed out by Hanjani et al,<sup>1</sup> there may be in some of the reported cases a question as to whether or not the primary site was the fallopian tube. Examples include an autopsied case reported by Motta<sup>11</sup> of a 14-year-old girl with carcinomatosis, and two cases of Manes et al<sup>12</sup> in which a hysterectomy was not performed to rule out a uterine origin.

TABLE 1

CASE REPORTS OF PRIMARY MMT TO THE FALLOPIAN TUBE BY AUTHORS

Author	Year	Age	Histology
Amann, J.A.*	1892	—	Heterologous
Franque, O.*	1902	51	Homologous
Motta, G. <sup>11</sup>	1926	14	Homologous
Leuret, J.*	1933	—	Homologous
Platz, J.*	1940	54	Homologous
Laudadio, E.*	1941	60	Homologous
Ferrando, M.*	1950	58	Homologous
Cavallero et al*	1959	65	Heterologous
Bochner, K*	1961	58	Heterologous
Williams et al*	1963	35	Heterologous
McQueeney et al*	1963	69	Heterologous
Malnasy et al*	1963	45	Homologous
Dequerioz et al*	1970	70	Heterologous
Wu et al <sup>10</sup>	1973	57	Heterologous
Acosta et al <sup>13</sup>	1974	62,46,48	Homologous(3)
Manes et al <sup>12</sup>	1976	74	Heterologous
Manes et al <sup>12</sup>	1976	47,76,58	Homologous(3)
Masamichi et al*	1978	57	Heterologous
Viniker et al <sup>21</sup>	1980	63	Homologous
Hanjani et al <sup>1</sup>	1980	62	Heterologous
Holst et al <sup>7</sup>	1981	65	Heterologous
O'Toole et al <sup>9</sup>	1982	71	Heterologous
Kahanpaa et al <sup>20</sup>	1983	65	Heterologous
Deppe et al <sup>14</sup>	1984	68	Heterologous
Punnonen et al <sup>6</sup>	1985	68	Homologous
Makinen et al <sup>5</sup>	1986	76	Homologous
Buchino et al <sup>3</sup>	1987	61	Heterologous
Yabushita et al <sup>4</sup>	1987	53	Homologous
Axelrod et al <sup>18</sup>	1989	73	Homologous
King et al <sup>17</sup>	1989	—	Homologous
King et al <sup>17</sup>	1989	—	Heterologous
Kinoshita et al <sup>16</sup>	1989	79	Homologous
Muntz et al <sup>15</sup>	1989	57,41,61	Heterologous(3)
Muntz et al <sup>15</sup>	1989	60	Homologous
Rose et al <sup>19</sup>	1990	—	Homologous(2)
Present case	1992	66	Heterologous

\*References 1,8,9  
— Unavailable  
(#) Number of cases

A third case presented by Acosta et al<sup>13</sup> had both ovarian and fallopian tube involvement, so that the diagnosis of a tubal primary was uncertain. The mean age for primary MMT of the fallopian tube was 59 years (range 14 to 79). There is no significant difference in mean age of reported cases of heterologous versus homologous types. Mean survival for patients with MMT of the fallopian tube is reported as 15 to 18 months. Since 1974, the mean survival rate for MMT has been 27.4 months. This improvement in survival may be attributed to the use of adjunctive chemotherapy.

The rarity of the reported cases, the lack of documentation of the stage of disease, and the insufficient reporting of actual survival make it difficult to formulate specific conclusions about the prognosis of MMT of the fallopian tube. Although most authors would agree that proper surgical staging and debulking does little to change the prognosis of this aggressive tumor, combination chemotherapy, especially the platinum-base regimens, along with surgery, potentially improves survival.<sup>1-4,9,12-19</sup>

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# Traumatic Disruption of the Cervical Trachea

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## Introduction

Disruption of the tracheobronchial tree is a rare injury. In the largest trauma centers an average of one such case is seen each year.<sup>1-18</sup> Bertelsen and Howitz<sup>1</sup> reviewed 1,178 postmortem reports of trauma deaths and found only 33 (0.03%) with tracheal and/or bronchial disruptions. Twenty-seven of these 33 were dead at the accident scene. Complete transection of the cervical trachea is rarer still. In a review of the literature, Mittleman<sup>2</sup> found eight such cases reported before 1987. Since then, five additional cases have been reported.<sup>3-5</sup> This apparent increase in incidence is attributed to a greater number of high speed vehicular accidents. In addition, more patients are reaching emergency rooms alive to have this diagnosis made.<sup>6</sup>

Classic signs of tracheobronchial disruption include dyspnea, massive subcutaneous emphysema, persistent pneumothorax, and a large air leak after tube thoracostomy. Subtle signs, however, may be the only indication of a significant injury.<sup>6-7</sup> This is the report of such a case.

## Case Report

A 67-year-old man was brought to the emergency room of the Johnson City Medical Center Hospital after being involved in a head-on collision. At that time he was complaining of chest pain. He was a known diabetic with a past history of a myocardial infarction.

The patient had been immobilized on a backboard and had a hard cervical collar in place. Lacerations of the upper lip and forehead were noted. A fracture of the left extremity had been splinted. His Trauma Score was 16.

Initially, the patient denied respiratory distress, there was no evidence of subcutaneous emphysema, and chest radiograph (Fig. 1) showed no pneumothorax. Rib fractures were present on the left.

While in the emergency room, the patient had several episodes of sharp chest pain with associated shortness of breath, and he became combative. He was endotracheally intubated, and a chest x-ray (Fig. 2) taken following this maneuver showed a small amount of left supraclavicular emphysema and left external jugular vein distension.

CT of the chest and abdomen showed a pneumothorax on both the right and the left, and mediastinal air was seen, but an injury to the trachea was not evident. Bilateral tube thoracostomies were performed; significant air leaks were not present.

When the patient was admitted to the intensive care unit, the nurses reported that in suctioning the endotracheal tube there was difficulty in passing the catheter beyond a certain

point. Fiberoptic bronchoscopy was then carried out, showing a complete transection of the cervical trachea. The endotracheal tube was advanced into the distal trachea over the bronchoscope, the patient was taken to the operating room immediately, and his tracheal injury was primarily repaired. His postoperative course was uncomplicated.

Upon review, the admission chest x-ray (Fig. 1) was thought to show the tracheal disruption.

## Discussion

Patients with tracheal injury due to blunt trauma may show dyspnea, subcutaneous emphysema, hemoptysis, multiple rib fractures, sudden loss of airway, voice

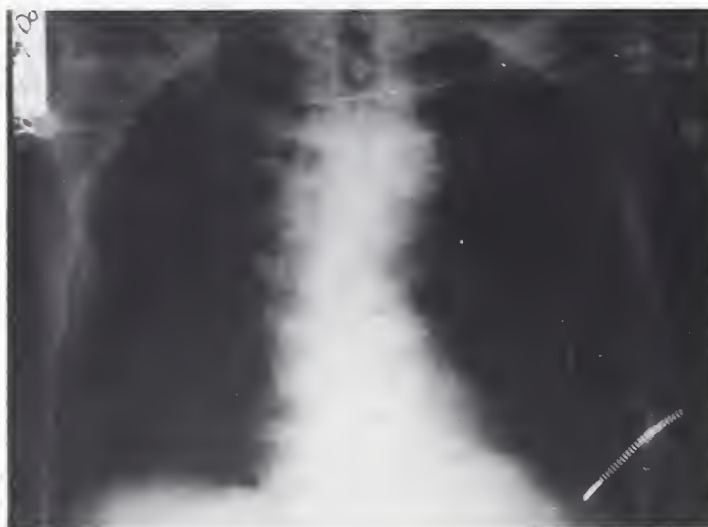


Figure 1. Admission chest x-ray prior to intubation.

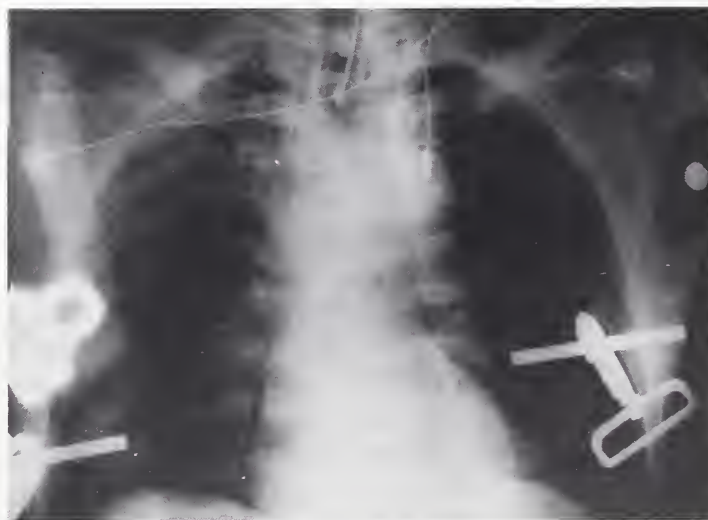


Figure 2. Chest x-ray immediately following intubation.

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changes, pneumothorax, tachypnea, increasing hypoxia after intubation and mechanical ventilation, and sudden death.<sup>1-18</sup> Many or few of these findings can be present, as noted in the patient described above. The classic chest x-ray is described as the "fallen lung" sign: peripheral rather than central collapse of the lung due to disruption of the normal anchoring attachments.

Although rare, tracheobronchial disruption should be at least considered in any patient sustaining blunt chest injury secondary to an unrestrained, high-impact collision. The presence of massive subcutaneous emphysema, a large air leak after chest tube placement, and difficulties with airway maintenance, as noted in this patient, should make this diagnosis even more of a concern.

Delays in diagnosis of this injury from days to months are not uncommon and can be detrimental to a successful repair.<sup>1,6,12,13</sup> It has been reported that emergency room attempts at intubation are unsuccessful in 75% of patients with tracheal disruption.<sup>8</sup> When there is suspicion of injury to the tracheobronchial tree, fiberoptic bronchoscopy should be performed to establish the diagnosis.<sup>9-11</sup> Best long-term results are obtained when there is immediate primary repair.

## Summary

Treatment of a case of traumatic disruption of the cervical trachea has been described. This injury is not common but must be suspected in blunt chest trauma patients, with evidence of possible tracheal obstruction as in this patient. Massive subcutaneous emphysema,

large air leaks, and persistent pneumothorax are more common signs of tracheobronchial disruption. Diagnosis can be made with fiberoptic bronchoscopy, and primary repair is the treatment of choice.

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## Lead Toxicity in a House Painter

### Case Report

A 49-year-old house painter presented himself to the emergency room complaining of abdominal cramps. The abdominal cramping, which began gradually over several days, was diffuse and not related to food intake. His appetite was unchanged. He denied constipation, diarrhea, nausea, or vomiting. He denied melena or hematochezia, but did note fatigue. The cramping was not severe and he was able to continue working as a house painter, working on old homes, stripping paint, remodeling, and repainting both indoors and outdoors. He was exposed to large amounts of dust.

On examination he was afebrile, mildly anxious, but in no distress. His abdomen was soft and nontender, with normal bowel sounds; there was no organomegaly. His stool was negative for blood. Laboratory findings included a normal urinalysis, a WBC count of 6,000/cu mm, a packed cell volume (PCV) of 38%, and a hemoglobin of 13.3 gm/dl. The red cells were normochromic and normocytic without basophilic stippling. Chart review revealed that his PCV had been 53% one year earlier. A blood lead level (BLL) was 100 µg/dl.

The patient was treated orally with succimer (Chemet, McNeil Consumer Products), at a dose of 10 mg/kg three times a day for five days, followed by 10 mg/kg twice a day for 14 days, and was also told to discontinue working at his current job site. A follow-up BLL approximately three weeks after institution of therapy was 31 µg/dl, and a repeat PCV was 46%. The patient was asymptomatic.

### Discussion

Lead poisoning remains a significant public health problem in the United States despite growing awareness that even minor exposures can have detrimental effects in both children and adults.<sup>1-3</sup> The signs and symptoms of chronic exposure to lead in adults can be extremely subtle; thus, the diagnosis of plumbism requires a high index of suspicion and a careful exposure history.

Lead is present in storage batteries, paint, ink, ceramics, radiators, ammunition, automobile exhaust, and soil. Occupations with risk of lead exposure include mining, welding, smelting, pottery making, radiator repair, storage battery work, automobile manufacturing, ship building, house painting, house remodeling, demolition, and firing ranges.<sup>1,3</sup> An estimated 57 million homes built in the United States before 1980 are potential sources of lead exposure.<sup>4</sup> Sandblasting paint in older homes has been shown to enhance the absorption of lead particles.<sup>1</sup> Children may ingest leaded paint chips, and they also absorb more of the ingested lead

than adults do. (The debilitating physical and neuropsychologic effects of very low levels of lead in children is outside the scope of this particular discussion.<sup>1,5</sup>) BLL of 10 to 15 µg/dl can inhibit  $\delta$ -aminolevulinic acid (DALA) dehydrogenase, which is responsible for the formation of protoporphobilinogen. Elevated lead levels also inhibit ferrochelatase, which incorporates iron into protoporphyrin IX. Increased DALA can alter  $\gamma$ -aminobutyric levels in the CNS, which may contribute to the behavioral and cognitive deficits seen in lead toxicity. BLL lower than 25 µg/dl in pregnant women may alter cognitive development in the newborn. Lead also can alter oxidative phosphorylation, vitamin D metabolism, and immune function.<sup>1,6</sup> Currently, the reference range for "permissible" BLL in adults is up to 50 µg/dl, although it is recommended that no additional exposure occur at levels of 40 µg/dl.<sup>1,3,6</sup>

Symptoms of poisoning vary from incoordination, memory loss, depression, insomnia, listlessness, fatigue, headache, or paranoia, to palsies, extensor weakness ("foot-drop" or "wrist-drop"), psychosis, flaccidity, seizures, or coma.<sup>1,6</sup> Lead colic is a direct effect of lead on smooth muscle, and may be manifested as cramping, nausea, emesis, diarrhea, or constipation.

Signs of plumbism include anemia, which may be microcytic but can be normocytic and normochromic, associated with reticulocytosis; basophilic stippling of the erythrocytes may be present. A blue-black gingival line may be seen, but usually in patients with poor dental hygiene; it is not pathognomonic of lead toxicity. There may be extensor muscle weakness, pallor of skin or eye grounds, and abdominal tenderness on examination. In adults, an interstitial nephritis may develop, and progressive renal failure and vascular changes can cause gout and/or hypertension.<sup>1-3,6,7</sup>

Lead can be inhaled or absorbed through the GI tract or skin. Initially, inorganic lead is deposited in most of the soft tissues of the body, with the highest levels in the kidney and liver and erythrocytes. Later the lead is redistributed into teeth, bone, and hair as an insoluble tertiary lead phosphate, and elimination from the body is slow.<sup>1,3,6</sup>

Diagnosis is best verified with a BLL. Elevated zinc protoporphyrin and erythrocyte protoporphyrin remain elevated longer than the BLL, and indicate the average

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Presented by Eden V. Wells, M.D., medical resident, Vanderbilt University Hospital, Nashville.

(Continued on page 522)

## Newborn Screening for Galactosemia In Tennessee

JANET E. ULM, A.C.S.W.

On Jan. 1, 1992, the Tennessee Department of Health initiated newborn screening for galactosemia, a metabolic disorder characterized by an inability of the body to break down galactose. In addition to galactosemia screening, Tennessee currently screens all newborns for phenylketonuria (PKU), hypothyroidism, and hemoglobinopathies. By adding galactosemia, Tennessee joined the 38 other states screening for this disorder.<sup>1</sup> This screening is complicated by the many different types and variants of the condition that can be detected through the screening process.

Classical galactosemia occurs in 1/60,000 births and is caused by the lack of the enzyme galactose-1-phosphate uridyl transferase (gal-1-PUT). Even though this condition is rarer than PKU,<sup>2</sup> its effects can be devastating without early diagnosis and treatment.

Infants with classical galactosemia appear normal at birth but typically they fail to thrive, and develop vomiting and diarrhea within several days after milk feeding begins. Other clinical symptoms include hypotonia, jaundice, hepatomegaly, and increased susceptibility to infections. Without treatment, infants can die early due to sepsis, which is usually unresponsive to antibiotic treatments unless a galactose-free diet is also begun. Untreated patients also develop cataracts, and growth and mental retardation.<sup>3</sup> Individuals with untreated galactosemia excrete galactose, galactitol, and galactonic acid in the urine. It is believed that the hepatic damage in untreated infants is due to increased galactose-1-phosphate in blood. Galactitol can also cause cataracts.<sup>3</sup>

Several variants of gal-1-PUT deficiency have been identified, some producing clinical symptoms and some not. The most common is the Duarte variant, which produces less gal-1-PUT activity than the normal gene, but more than classical gal-1-PUT deficiency.<sup>2</sup> For example, infants with classical galactosemia (GG) have no enzyme activity, whereas a carrier for classical galactosemia (NG) has 50% enzyme activity. Infants who are homozygous for the Duarte variant (DD) also

have 50% enzyme activity, and do not require treatment. Infants who have one Duarte variant gene and one classical transferase deficiency gene (DG) have only 25% enzyme activity; whether or not these infants require treatment is not well defined and has been debated in the medical literature.<sup>4-6</sup> Many other variants of transferase deficiency exist, and the amount of enzyme activity differs with each. The need for treatment depends on the percentage of transferase activity and the resulting degree of elevation of galactose or galactose-1-phosphate levels in the blood.<sup>6</sup> These variants typically can be distinguished by their banding patterns on electrophoresis.

Other enzyme defects can also result in galactosemia. These defects are rarer than classical galactosemia, and include defects in galactokinase and epimerase activity. Typically, these defects cause less severe clinical symptoms but may still require treatment.<sup>2,3</sup>

The major clinical symptom of galactokinase deficiency is cataracts. While hepatomegaly, jaundice, and mental retardation often do not occur in this condition, isolated cases with these symptoms have been reported.<sup>7</sup> This condition should be considered in any child with cataracts.<sup>3</sup> Dietary restriction of galactose can prevent cataracts.<sup>2</sup>

Uridine diphosphate galactose-4-epimerase deficiency can also result in elevated galactose levels in blood. This defect in galactose metabolism is thought to be benign and thus does not require treatment.<sup>2,3</sup> There has, however, been one case report of a child with epimerase deficiency who presented with symptoms similar to classical galactosemia.<sup>8</sup>

The treatment for galactosemia is a galactose-free diet. In infancy, this is accomplished by giving a galactose-free or soy-based formula. As the child becomes older, maintaining a completely galactose-free diet becomes more difficult since galactose is found in many food additives and preservatives and can be overlooked. Close consultation with a dietitian trained in the management of metabolic disorders is essential. Treatment compliance can be measured by checking the urine for reducing substances or monitoring galactose-1-phosphate levels in blood.<sup>4</sup>

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From the Genetics Program, Maternal and Child Health Section, Tennessee Department of Health, Nashville.



Each of the forms of galactosemia discussed here is inherited as an autosomal recessive, which implies that the parents are obligate carriers, having one normal and one abnormal gene. When both parents are carriers, there is a 25% chance that the child will have galactosemia. Therefore, providing genetic counseling to parents of an affected child should be an integral part of any newborn screening program.

Genetic counseling should also be provided to individuals with galactosemia when they reach child-bearing age. Many women with galactosemia have diminished or absent ovarian tissue resulting in infertility, but gonadal development in affected males appears to be normal.<sup>2</sup>

Tennessee's newborn screening program for galactosemia is a two-part test. The test for galactosemia, as well as the test for PKU, hypothyroidism, and hemoglobinopathies, is performed using the filter paper blood spots collected from each newborn before discharge from the hospital. Each blood sample is tested for a total galactose level. If this level is within normal limits, no further testing is required. (It is important to note that if a baby is receiving a galactose-free formula when the screening is performed, galactosemia would not be detected by the screen.) If the galactose level is elevated, a second test is performed to measure the gal-1-PUT level by fluorimetry. If the enzyme is absent on newborn screening, classical galactosemia is strongly suspected.

Because of the many variants of gal-1-PUT deficiency and the other enzyme defects that can result in galactosemia, a complex protocol for the interpretation and follow-up of infants screened for galactosemia has been developed. The level of follow-up is determined by the index of suspicion that the child may have classical galactosemia. However, all abnormal newborn screens for galactosemia require some form of follow-up (Table 1).

The physician and the submitter listed on the newborn screening form are notified by phone and/or by mail of any borderline, abnormal, or presumed positive

galactosemia results and are instructed regarding what follow-up is needed. Any infant with an abnormal or presumed positive result is also referred to one of the three regional genetics centers experienced in the management of children with metabolic conditions. The regional genetic centers and the physician work closely to determine what confirmatory blood specimens need to be obtained and any dietary changes that should be made. It is important to recognize that not all infants who have abnormal screening results will have galactosemia or need treatment. The cut-off levels used by the state laboratory are intentionally set low to insure that no affected baby will be missed. These cut-off levels will change as we gain more experience with newborn screening for galactosemia.

Improperly obtained samples or those not received by the newborn screening laboratory in a timely fashion cannot be used for any of the newborn screens, and a repeat sample will be requested. Another common reason for requesting a repeat specimen is that the blood sample was obtained when the infant was less than 24 hours old. While these samples are run by the laboratory and reported in the event of a suspected positive result, a repeat sample is required because abnormal levels of phenylalanine (as occurs in PKU) or galactose may not be present if the infant has had milk feeding for less than 24 hours, and this could lead to a false-negative result. The laboratory considers these infants "unscreened" until a repeat sample is obtained.

Transfused infants can also have false-negative results on newborn screening. If the infant's galactose level is elevated, it is not possible to rely upon the gal-1-PUT enzyme test since the transfused blood would be expected to have normal enzyme activity. In these infants, follow-up galactose levels must be obtained, and if still elevated, dietary treatment must be initiated until four months have passed since the last transfusion. At that point, enzyme testing could be considered reliable. Since many of these infants are also premature and may have numerous medical problems, close coordination between the regional genetics center and the physician

**TABLE 1**  
**NEWBORN GALACTOSEMIA SCREENING PROTOCOL\***

Total Galactose Level	Enzyme Activity Level	Result Reported As	MCH/Provider Contract	Follow-Up Required	Possible Diagnostic Implications
<9 mg/dl	Not assayed	Normal	Report	None	None
≥9<13 mg/dl	Normal	Normal	Report	None	None
≥9<13 mg/dl	Low	Borderline	Report	Repeat filter paper screen	Galactosemia carrier or variant
≥9 mg/dl	None	Presumed positive	Phone	Confirmatory specimen	Galactosemia
≥13<20 mg/dl	Low	Abnormal	Phone	Confirmatory specimen	Galactosemia carrier or variant
>13<20 mg/dl	Normal	Borderline	Report	Repeat filter paper screen	Galactokinase or epimerase deficiency
>20 mg/dl	Normal or low	Abnormal	Phone	Confirmatory specimen	Galactosemia or Galactokinase or epimerase deficiency

\*Galactose-1-phosphate uridyl transferase protocol is for non-transfused infants

is again essential to insure that the infants receive appropriate treatment.

The success of our newborn screening program relies upon the cooperation of hospital personnel, physicians, health departments, the newborn screening laboratory, regional genetics and sickle cell centers, other medical specialists, and parents. Only through the collaborative effort of all these individuals can Tennessee insure that all newborns are screened and obtain appropriate follow-up. Because of the complexity of newborn screening for galactosemia, it is extremely important that physicians and other health care professionals understand the ramifications of the various screening results. Parents can become unduly alarmed by a borderline or abnormal result that may not be clinically significant on follow-up testing. Parents may also resist having repeat blood samples obtained from their infant if the importance of repeating the screen is not adequately explained.

Newborn screening can significantly reduce infant morbidity and mortality, but should never be used as a substitute for the physician's clinical judgment. Children with symptoms of galactosemia, PKU, hypothy-

roidism, or hemoglobinopathies should always be retested rather than assuming that they would have been identified by newborn screening. With this collaborative effort, the devastating effects of untreated PKU, hypothyroidism, hemoglobinopathies, and galactosemia can be virtually eliminated.

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(Continued from page 519)

exposure over the previous three to four months. The BLL is less variable than the urine lead levels. Assays of DALA-dehydrogenase, DALA, or coproporphyrin III may be useful, but are not specific.

Treatment involves removal of the source of exposure, especially if the BLL is greater than 40 µg/dl. Chelation is reserved for those with evidence of toxicity. Prophylactic chelation in workers is not an approved practice in the United States.<sup>3,4</sup> Intravenous or intramuscular administration of dimercaprol or calcium disodium edetate over three to five days can be initiated, although these drugs usually require hospitalization and strict monitoring of renal function. An oral chelating agent, succimer,<sup>8</sup> used in this patient, is available. Follow-up is required after treatment with any chelating agent, because the BLL may rebound as bone stores are mobilized.<sup>3,6</sup>

The signs and symptoms of lead intoxication can be protean, varied, and nonspecific, especially in

low-dose chronic exposures and initial stages of poisoning.<sup>2</sup> Attention to historical details such as occupation may allow the physician to discover a case of plumbism that would otherwise progress without medical intervention.<sup>2,9</sup>

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# A Slow Walk on a Weekend

J. KELLEY AVERY, M.D.

### Case Report

The patient is a male adolescent with a past history of migraine headaches and sinusitis. He had not had a bad headache in over a year, and his mother thought that what had been suggested when the problem started was taking place: that her son would probably "grow out" of this problem as he matured. On the Monday that school started back after the Christmas break, a right-sided headache began. It was no different from previous episodes. After seeing some spots before his eyes, he very quickly developed a severe headache. His mother treated him symptomatically as she had many times in the past. She gave him aspirin, put him at rest in a darkened room, and waited for the pain to subside. He vomited within an hour of the onset but this was not a prominent symptom.

When the pain did not subside by the third day, Wednesday, she made a drop-in visit to the pediatrician who had been her son's doctor since birth. The patient had vomited again that morning and there was some nasal congestion and rhinorrhea that had developed about the same time the headache started. The examination did not reveal any neurologic findings, and the vital signs were normal. The throat was thought to be somewhat reddened, the nasal mucous membrane was boggy and swollen, and the WBC count was found to be 11,000/cu mm with 86% lymphocytes. The pediatrician thought that the patient had both one of his migraine headaches and some allergic sinusitis aggravating the condition. An antihistamine was prescribed and an injection was given for the continued vomiting.

Two days following the office visit, the mother called her doctor's office as instructed, reporting that the headache was no better. She talked to the office nurse, and in response to the nurse's question, reported that her son had not had any fever that she had detected. She was advised to continue the treatment prescribed at the office visit and to call if the symptoms did not improve. On the following day, Friday, she reported that her son's condition had not improved and asked the physician about the possibility of encephalitis. The pediatrician instructed that the patient be taken to the hospital for admission and that orders would be called in.

The young man was taken to the hospital and admitted about mid-morning. The admitting diagnosis was probable viremia with dehydration. Orders for intravenous fluids were given, along with instructions to do CBC, urinalysis, electrolytes, blood cultures, capillary blood gases, and give IV Vistaril for headache and vomiting. The physician was to be called when the blood work was reported. Thirty minutes after

admission the Vistaril was given for headache. Three hours after admission the nurses noted, "continues to complain of headache." A "late entry" nurse's note reported, "Lab results reported." The WBC count was 16,400/cu mm with 88% segmented neutrophils.

Four hours after admission the physician called in orders for a throat culture and IV Ampicillin, and seven hours after admission he came to the hospital and repeated the physical examination. There were no new findings. There was a specific notation that the neck was "supple." The attending physician's impression remained, "Viremia; rule out sinusitis." X-rays of the sinuses were ordered for the following morning and Tylenol with Codeine for pain. Progress notes by the pediatrician were made again at eight and ten hours after admission, confirming the persistence of the severe headache.

Every nurse's note from the time of admission recorded that the headache persisted and that every time he was aroused from the drowsiness induced by the medication, he reported severe headache. Vomiting continued, and the patient was unable to retain any food or fluids taken by mouth. The condition continued essentially unchanged during the night. The notes by the nurses included neurologic assessments which document that the pupils consistently reacted normally to light and accommodation.

About 24 hours after admission, Saturday, the attending physician made rounds, and after assessing the patient's condition, wrote, "No signs or symptoms of CNS other than headache. Will ask neurologist to see. Sinus x-rays negative." The orders written at that time instructed the nurse to call the neurology group for consultation. Two hours later, about noon, the neurologist came, took a detailed history, and did a physical examination. His consultation note is as follows: "History obtained from the mother. Six days ago developed right-sided headache with spots in vision. Improved. Able to go to school the day after onset, but in evening, developed more severe bifrontal headache, persistent to present. Headache associated with nausea and vomiting. Some somnolence and mild confusion. Not complaining of diplopia, weakness, or numbness. At onset, complained of some dizziness but none since. History of minor headache about once a week and more severe once a month for the last four to five years. Family history of migraine. Physical examination: sleepy, easily arousable; not particularly cooperative. Follows simple directions. Fundi benign. EOM conjugate. Pupils 6/6 to 4/4 with light. Face symmetrical. Tongue midline without dysarthria. Grip symmetrical. Extremity movement symmetrical. DTR's 1+ and symmetrical throughout. Plantar response clearly extensor on right and flexor on the left. Sensory grossly normal. Neck movable without meningismus. Impression: Probable basilar migraine." The consultant continues, "Somnolence and mild confusion may be directly due to headache syndrome in addition to Vistaril. Because of the up-going toe, should schedule CT of head. No other evidence of CNS abnormality with current level of somnolence."

The CT of the head was ordered for the following morning.

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Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.



The attending physician called in to order a stat serum ammonia. The patient became incontinent of urine. The attending physician called about 8 PM to inquire of the status of his patient and ordered liver enzymes in the morning.

About 10 PM, 36 hours after admission, the nurses notified the neurologist's "exchange" of a decided change in the status of the patient. About 15 minutes later the neurologist called in to learn that the "right pupil was sluggish to react. Left brisk. The patient was incoherent and had no grip on the right. There was no response to the mother's voice." Orders were received to do the CT of the head stat.

The CT revealed what was thought to be "areas of early abscess formation or focal areas of encephalitis." The attending physician and the neurologist both agreed that a neurosurgeon should be consulted. The patient was moved to the ICU. The nurse's notes reflected that the patient's blood pressure "continues to rise" and documented increasing somnolence and unresponsiveness throughout the night. The neurosurgeon was notified about 5:20 AM. He arrived in the ICU after respiratory arrest had occurred and resuscitation was in progress. The patient had been intubated and was on a respirator. Within two hours of the arrival of the neurosurgeon, an emergency craniotomy was being done. The surgeon's note indicated that bilateral occipital abscesses were found, drained, and excised.

There followed a long hospitalization, severe neurologic impairment, including blindness, right hemiparesis, and marked cognitive deficit. A lawsuit was filed charging both the pediatrician and the neurologist with failure to diagnose and treat in a timely manner and a failure to consult a neurosurgeon in a timely manner.

## Loss Prevention Comments

One of the most frequent allegations made in litigation against a physician when there has been a bad or unexpected result is that of failure to diagnose or treat the patient in a timely manner and alleging that the delay caused the patient's injury. One reason that it is difficult to defend against this charge is that even when we are relatively sure that the apparent delay has not affected the course of the condition, the lay jury can easily be led to the conclusion that since a certain recommended treatment was not employed early in the particular case, we cannot be certain that it would not have favorably altered the outcome.

It has been pointed out many times that weekends and holidays are fraught with danger in the medical malpractice arena. We have attributed this to the staffing patterns in the hospitals, the confusion of on-call arrangements, and, sometimes, that being on call for a number of physicians over the weekend is overwhelming. All of these factors may well have played a significant role in this case.

Headache is a confusing and complicated subject! It is a subject with which most of us would like never to deal! Yet, headache ranks high on the list of reasons that people come to see the doctor. In this case, we have a patient who had a well-established history of a reoccurring syndrome. The story was the same every time this young man had a headache. It began on the right side of the head. It was preceded by scotomata most of the time. It was associated with nausea and vomiting. It responded to rest in a dark room and other simple rem-

edies. It was self-limiting and consistent.

Here we have a headache that began as usual but did not progress and resolve as expected. By the time the pediatrician saw the patient for the second time, the headache was no longer right-sided. It was frontal and bilateral. It was different from the pattern that was familiar to the family and the physician. When first seen, there were indeed signs of an allergic or viral upper respiratory condition. The WBC count was 11,000/cu mm and there were 86% lymphocytes. When he was admitted to the hospital, his WBC count was 16,400/cu mm and there were 88% segmented neutrophils.

There was patient contact with his doctor on the third day of symptoms. There was another contact with his office two days later. The advice was to continue treatment and call back if there was no improvement. The physician's office record would strongly suggest that this encounter was between the mother and a nurse who spoke for the doctor.

By the time hospitalization was required, the somnolence that was attributed to the Vistaril was not thought of in the context of a headache that had changed. Nurses' notes consistently showed continued headache, sometimes described as severe, deepening somnolence, and slowly rising blood pressure. Vomiting continued. These signs were not taken together as possibly indicating increasing intracranial pressure.

When the attending physician recognized early the signs of possible neurologic problems, he ordered the CT for the following morning. When he thought that a neurologist was needed it was into the second hospital day, and he did not communicate directly with the neurologist but ordered the consultation by a member of a group, not knowing which member would respond. Direct communication between the two physicians might well have brought things to a head more quickly.

The neurologist responded quickly, but even in the face of localizing neurologic findings did not change the order for the CT to stat. He did this only after the patient had deteriorated significantly. The abnormal CT was reported and "probable abscess" was strongly suspected about midnight. It was hours later when the neurosurgeon was summoned, after respiratory arrest had occurred and the patient was on a ventilator. Stat craniotomy followed.

The damages here were catastrophic!—an adolescent with severe lifelong neurologic impairment requiring constant attention and therapy. Fortunately, a settlement was negotiated.

The hazards of the weekend, an overburdened on-call physician, and less than adequate nursing support in the hospital are all possible players in this tragedy. The lack of prompt attention to a young patient with rapidly developing signs of neurologic deterioration was the picture painted by the facts. It is almost always an error not to proceed rapidly and aggressively in such cases.



# Understanding the Benefits and Hazards of Health Care Reform Proposals

ROBERT BOWERS, M.D., *Chairman*  
TMA Communications and Public Service Committee

At least 30 national health care reform packages have been presented in Washington, D.C., from sweeping proposals for nationalized health care, to moderate changes that preserve freedom of choice for consumers and physicians, while at the same time streamlining the insurance system.

There is ample evidence that some kind of reform is needed. Medical care costs have doubled every five years. Insurance premiums have kept pace with the spiraling costs, pricing millions of Americans out of the insurance market. Those escalating premiums reflect the practice of cost shifting by providers.

Physicians are forced to spend more of their time consulting third parties, from insurance companies to HMOs to PPOs, to discover if a patient is allowed coverage for needed procedures or hospitalization. The agonizing reality of patients who are unable to receive needed medical care because of inadequate financial resources also confronts the physician.

Although cost and access issues are troubling, the American health care system still boasts substantial strengths, such as freedom of choice for patients, availability of the latest medical technology, outstanding training programs for physicians and other medical professionals, and access to care. Our patients and detractors need to be reminded of these positive arenas in the midst of election rhetoric.

Attempts to reform the health care system must preserve these strengths. The AMA's Health Access America builds on the foundation of these strengths while proposing needed changes such as:

- *Universal Coverage*: This is best achieved through a combination of employer-required insurance, Medicaid and Medicare reform, and other specific initiatives. Insurance reform needs to guarantee individuals the freedom to change jobs without losing coverage for pre-existing conditions.

- *Cost Containment*: Mandatory release of health care fees and pricing information would allow consumers and employers to make informed choices about care. A uniform claim form would eliminate wasteful and time-consuming administrative overhead. With federal legislation to limit malpractice rewards, contingency

fees, and awards for noneconomic damages, as well as provide for alternative dispute resolution programs, the practice of "defensive medicine" could be eliminated.

- *Freedom of Choice*: Patients must remain free to choose their physician, hospital, and other health care providers. Employers should offer workers flexible options for insurance coverage.

A recent three-part series by *Consumer Reports*, delineating the weaknesses of the current health care system, included high prices, duplication of services, self-referral, excessive administrative costs, and over-treatment of patients. The report blamed insurance executives, physicians, and other providers for many of these problems, but overlooked the system's strengths.

James Todd, M.D., executive vice-president of the AMA, met with the writers and reporters from *Consumer Reports* to voice his concerns.

"I took exception with the tone of part one as biased and not the objective reporting that *Consumer Reports* has built its reputation on," Dr. Todd said. "I told them their readers expect nothing less than total objectivity. Although it was apparent to us from reading the article that they viewed a single-payer system as the answer, we spent over an hour with them, discussing the merits of Health Access America. We had no illusions going into the meeting, but we believe that our message was the one they should hear. Editors and reporters must have feedback, even when they may not like what they hear."

TMA's CARE program is embarking on an effort during the late summer/early fall to reinforce the TMA and physician position on health care reform. The program includes a series of opposing editorials sent to all society presidents for their local newspapers, activation of our network of spokesmen physicians to field media questions, and the utilization of our recently introduced CARE Notes publication for patients.

As caring, compassionate professionals, physicians are interested in the reform of the nation's health care system. Changes such as those proposed by the AMA—and supported by TMA—are expected to ensure the continuation of high-quality care, while guaranteeing access to all Americans.

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# State of the Art Medicine Outsmarted By Octogenarian Thumb *or* To Dance or Not To Dance

BENJAMIN CARL ROGERS, M.D.

This report is concerned with the course of a painful ankle and the development of reflex sympathetic dystrophy over a period of five years in a 13-year-old otherwise healthy girl.

It is being submitted for the following reasons. Firstly, both conditions are very rare in persons of her age. Secondly, it took an unusually long time for each condition to reach its present state. Thirdly, older readers will probably enjoy recalling that their physical diagnosis professors repeatedly pounded into them that a detailed history and laying on of hands are important aids in making many clinically correct diagnoses. This case is a good example of what they were trying to teach us. Fourthly, younger readers will be cited to a case in which the thumb furnished information that led to a correct diagnosis and appropriate treatment, whereas an unusual amount of state-of-the-art medicine may well have actually delayed the diagnosis and treatment. Finally, a diagnostic point or two that they might find useful is called to the attention of examiners of painful ankles.

**The patient's trouble started at age 8, following a week of strenuous practice sessions for her dance recital.** She loved dancing, so she put into it everything she had to offer. Incidentally, or was it incidental, she is one of the very few who could walk or dance around the studio on her toes, ballet style, without the benefit of socks, let alone ballet shoes. Her teacher eventually forbade her doing this, but unfortunately the admonition may have come too late.

On the morning of the recital she awakened with swollen, hyperemic, painful and tender ankles, worse on the right side. She attended the recital on crutches. With rest, heat, and analgesics the left ankle subsided in sev-

eral hours, but the right took a few days to clear up.

Thereafter, over the past five years, she has had a painful right ankle at irregular intervals. Sometimes there would be swelling, at other times none. The pain was always most intense below the medial malleolus. Early on, it was noted that each flare-up seemed related to increased activity about the farm such as running, jumping off the hay wagon, or chasing cows. The ankle turned over easily and frequently.

Often she would retire at night feeling all right, to be awakened during the night or the next morning by severe pain below the malleolus. After two or three days on crutches the pain would subside.

A few times the left ankle, wrists, and elbows would be uncomfortable but never to the extent of the right ankle. On one occasion one physician considered a juvenile type of arthritis as the cause. These joints soon cleared up and have caused no further trouble.

**About two years after the dance recital episode** she developed another type of leg and foot pain, in addition to the medial malleolar pain. Besides the pain, the leg and foot would be cold, and pallor was often marked. Analgesics did nothing to control this pain, and it did not seem to be particularly related to increased activity.

She was seen several times in the pediatric clinic of a nearby teaching hospital. Hot baths, physiotherapy, and analgesics offered some relief. Several psychotherapeutic sessions did not seem beneficial. She was hospitalized twice for acute flare-ups during a two-week period.

The next week she had another flare-up of the ankle along with stomach ache and mild nausea. She was again hospitalized for "intensive study."

She had x-rays, a CAT scan, a GI series, consultations, and two gastroscopic examinations, along with

Reprint requests to 103 Skyview Terrace, Shelbyville, TN 37160 (Dr. Rogers).

sundry laboratory procedures, but the cause of the stomach complaints was never pinpointed.

During this hospitalization several consultants came to the conclusion that she had reflex sympathetic dystrophy (RSD), cause undetermined. One consultant said only seven cases of RSD had been reported in a child her age. The family was told that she would probably have to learn to live with it, and would most likely need psychotherapy somewhere along the way.

A few weeks later the abdominal complaints returned, with minimal findings suggesting possible appendiceal involvement. An appendectomy at the local hospital completely relieved all symptoms, and there have been no further abdominal complaints even with large doses of analgesics.

**During the next three years the ankle pain increased** in frequency, severity, and longevity of attacks, and less activity was needed to set it off. The episodes might or might not be accompanied by the RSD type of pain and its accompanying heat and color changes. Also, at times she would have the RSD-type pain without the usual ankle pain.

Eventually, during the latter part of the summer of 1991 she developed ankle pain that persisted day and night, and gradually worsened. This episode started during the night after she had run up a steep hill while playing chase the leader. Crutches had to be resorted to and were used for walking until recently. Being in an upright position aggravated the pain, but she remained reasonably ambulatory. Elevation of the leg afforded some relief.

She continued to visit the pediatric clinic on a fairly regular basis.

**Finally, because of the severity of the pain and the RSD symptoms** she was referred by the pediatric clinic to the pain clinic of the teaching facility. Over a period of several weeks she had two caudal anesthetics, six lumbar level anesthetics, and two Bier blocks. The RSD pain was relieved for a few hours to as long as three weeks. The length of pain relief time did not seem to be predictable. The ankle pain was still intermittent.

Shortly before last Christmas it was learned that a pain specialist in a nearby Alabama town was having good results treating RSD by using continuous epidural anesthetics. Accordingly she was hospitalized under his care. She was given a continuous epidural over a period of ten days with excellent results as far as the RSD pain was concerned, and she has not had any recurrence of the RSD pain with its skin changes, but the ankle pain persisted and became progressively worse. At times not even 50 mg of Demerol afforded much relief. Fairly large doses of Buspar, Prozac, Advil, Motrin, and Dibenzylene afforded only minimal relief. She would often sit holding her foot with tears streaming.

During the next few weeks, partly by family choice, and partly by peer referral, she saw seven orthopedists, two psychologists, and a third pain specialist. On advice

of these consultants she had a nerve conduction test, an MRI, another CAT scan, a bone scan, two personality evaluations, and three sets of ankle x-rays. All were negative except that the last ankle x-ray was reported as showing some early disuse bone changes.

One orthopedist injected the painful site with a xylocaine-steroid mixture. This afforded complete relief for two and a half hours. A second injection by her pain specialist afforded relief for about six hours. He probably used Marcaine.

The third pain specialist found some soreness along the saphenous nerve. He put considerable emphasis on this, but in the light of later events I am reasonably sure that the saphenous nerve was involved in a referred pain cycle.

Summarily she was offered rest, heat, cold, leg elevation, massage, physical therapy, an implanted stimulator, sessions in pain rehabilitation, repeat epidurals as indicated, and intense in-house psychotherapy for two or three months. All consultants told the mother to "not let anyone touch the ankle with any form of surgery."

**One day after she had been seen by four of the orthopedists** while massaging her foot and ankle with, of all things, Balm Ben-Gay, my thumb slid over the retinaculum (lacinate ligament in my day). She yelled and almost hit the proverbial ceiling. At that instant a tentative diagnosis of tarsal tunnel syndrome (TTS) was made. Additional palpation and observation verified a good pulsating artery that was very tender both above and below the retinaculum.

When the thumb was moved onto the course of the tibial nerve and slid slowly downward and over the ligament there was a shriek and a fist landed in the middle of my back. The word tentative was immediately erased from the diagnosis. My thumb had done its thing. In my book she definitely had a TTS.

**But why emphasis on the thumb? I had been sitting** on the side of her bed when she asked for the massage of her foot and ankle. She had turned crosswise of the bed and laid her right leg across my thigh with my back to her. Massages had been done in the usual doctor-patient positions, that is, facing each other, but none had ever elicited pain of that degree. The usual face-to-face position was then assumed to see if the fingertips would elicit the same pain response. They definitely did not. The original position was assumed and the massage continued with an occasional excursion of the thumb along the course of the nerve. Each time the thumb reached the ligament there was a painful reaction.

It was surmised that moving the thumb slowly and firmly downward created a "stretch factor" that let the swollen entrapped nerve be pushed a bit more tightly into an already crowded tunnel. This created a more painful stimulation of the nerve causing a more violent reaction. The same degree of pressure with the thumb moving upward and over the ligament did not cause nearly as much pain. This stretch factor or at least ex-



amination of the nerve from above downward may well be a useful aid to the other examiners in the diagnosis of a suspected TTS. Later massages were done but always with the admonition, "Don't you dare use your thumb."

In the office the patient could just as easily lie on the examining table with the examiner standing on the appropriate side with his back to the patient. This position gives the thumb first priority as the hand travels downward and over the ligament.

In spite of lack of paresthesias, in spite of a normal nerve conduction test, in spite of seven specialists, later increased to ten, saying "no surgery," and in spite of her age it was my opinion that she did indeed have a TTS and should have surgery.

This opinion was further reinforced by three positive blood pressure tests and by the relief obtained by the two local injections.

**In 1967, Lam<sup>1</sup> reported on 13 TTS procedures** performed on ten patients. Three of them had already had TTS surgery done on the opposite side. In nine of these procedures no recognizable pathology was found at the operating table, yet all were relieved of their pain within 24 to 48 hours. Opening up the tunnel had given relief even though definite entrapment was not demonstrable. This report also further reinforced the diagnosis of TTS and her need of surgery.

By this time it had been concluded that the entrapped nerve could well be the "causative site" of the RSD. Symptoms of this were carefully looked for during subsequent examinations, but none ever appeared. Awareness that surgery might be traumatic enough to cause a flare-up of the RSD caused some concern but not enough to override my thinking that she needed an exploratory procedure.

**At this point a conference was arranged with her** pain therapist. He had begun to wonder if she might not have some condition in addition to the RSD since the original pain still persisted. He was concerned that surgery might reactivate the RSD but gave assurance that he would be available in case that happened.

With this assurance an exploratory procedure was recommended to the mother. It was easily understood why she was reluctant to agree. She had been told by four orthopedists and three pain therapists to not let anyone do surgery on her daughter's extremity. Exploration was recommended after each of the next two visits to other orthopedists, but she remained undecided.

Still later the patient was referred by a previous orthopedist to the chief orthopedist-RSD specialist at a well-known clinic in Arizona. Basically he told the mother that her daughter should have intensive in-house pain rehabilitation and psychotherapy over a period of two or three months and under no circumstances should she allow any surgical procedure to be done.

On return from Scottsdale both patient and mother were tired, discouraged, and somewhat depressed. Dur-

ing the discussion of this visit, both voluntarily requested that arrangements be made for exploration of the ankle.

Fortunately a long-time peer and friend (John Derryberry, M.D., Shelbyville) who had done several carpal tunnels and a few tarsal tunnels was still in active practice. After a careful history and examination he felt that she did most likely have a TTS and at any rate should have the benefit of surgical exploration. Arrangements were made and she was scheduled as a TTS case.

**Under general anesthesia a curved incision was** made midway between the medial malleolus and medial tubercle of the calcaneus. When the retinaculum was exposed the upper edge was found to be quite thickened. Most of this increase in thickness was found to be on the tunnel side of the ligament and more so over the artery and nerve. Both were somewhat flattened out, but pulsation in the artery was good.

The upper end of the tunnel was filled to the extent that the tip of a curved Kelly could not be inserted unless the artery was further compressed. The nerve was noticeably swollen and mildly hyperemic above the ligament, flattened out beneath it, and normal again before going into its three divisions.

The thickened tissue was quite dense and fibrous, very avascular, and glistening with all the appearance of "scar tissue." It was most dense over the nerve and feathered out to normal thickness of the retinaculum anteriorly and posteriorly. There was not a definite band formation, just what appeared to be scar tissue. As the ligament was transected the scar tissue was found to have also feathered out distally at about the mid-width point of the ligament. From this point on the ligament was normal in thickness. Beneath this portion the nerve and artery were freely movable. Three or four hemostat tips could have been inserted with ease into the lower half of the tunnel. Both nerve and artery were explored above and below the ligament. They were found to be free of adhesions or pressure.

**It was surmised at the operating table that certain** fibers of the ligament could well have been torn during dance rehearsal or toe walking with perhaps additional ones at later dates. These had healed initially without too much impingement on the nerve by scar tissue. Subsequently, overactivity would cause increased pressure on the already crowded nerve with perhaps another torn fiber or two in the ligament. In a few hours there would be enough swelling of the nerve to cause pressure pain sufficient to awaken her. Presumably after two or three days, swelling of the nerve would subside, pressure would be released, and she would be free of pain until the next episode.

It was further surmised that over a period of three years, enough scar tissue had been laid down to cause constant pressure on the tunnel contents, hence the constant and persistent pain for the past four months. This



supposition does not seem unreasonable in light of what was found.

But back to the surgery. Minimal bleeding was controlled by four Dexon ligatures. A tourniquet was not used because of RSD history. The skin only was closed with a running lock suture of 5-0 Ethicon nylon. A sterile pressure dressing using Coban and Kerlex to give a somewhat firm mobilizing pressure was applied. (Sutures were removed on the 13th day.)

**Postoperatively all previous medications were discontinued.** During the first postoperative day she had one 10-mg Toradol tablet, and one 15-mg Toradol injection. She had three Lorcet N tablets during the next two days. She had an occasional Lorcet N tablet during the next four days but nothing since. She was encouraged to assume normal activity as rapidly as possible.

By the end of the second day she could tell that the original pain was no longer present. Examination along the course of the saphenous nerve showed no soreness, hence the thought that the previous pain on pressure was a referred-type pain.


She started walking without crutches on the third day both in the house and yard. She went horseback riding on the fourth day without pain. Prior to surgery she could not tolerate the additional pain brought on by gaits other than a slow walk. She went fishing the fifth

day. Three fish obliged. For four months she had not been able to do these things because of exacerbation of pain.

The surgical incision has healed well. She still wears an ace bandage when outside because "it just feels better."

She has returned to school for the first time in four months except for parts of three days. She had been unable to negotiate the several school stairs without exacerbation of pain. Also she would often be drowsy from medications. She has had homebound teaching and has kept up with her homework.

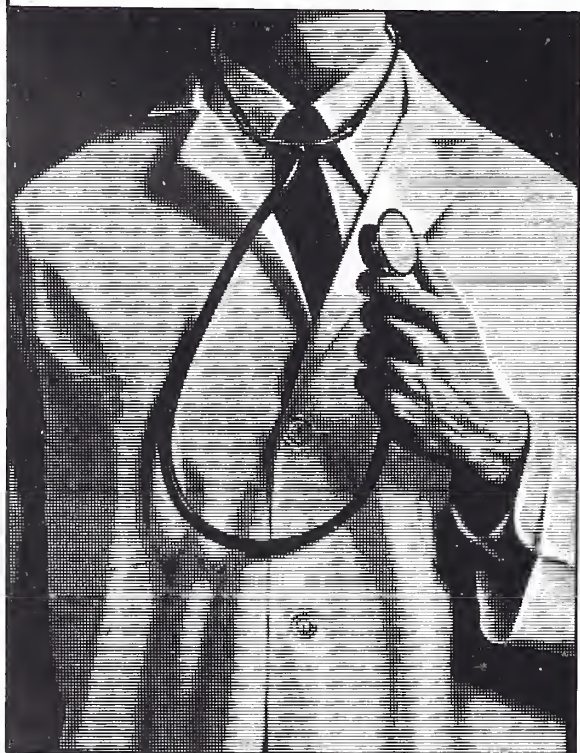
At this point in time we are sure that the cause of the ankle pain has been eliminated. It is a bit early but not too unreasonable to think that the causative site of the RSD has also been eliminated.

**In conclusion, the release of the entrapped nerve** has returned my uncomfortable and at times depressed granddaughter to her former energetic and cheerful self. She now functions as a normal teenager. In addition, her surgery has cured my dyspepsia and insomnia of several weeks' duration. God bless my thumb! 

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## Loss Prevention Case of the Month

I enjoy reading the *Journal* every month, but one Regular Feature seems to stand out every time and I can't help but to become upset while reading it: the Loss Prevention Case of the Month.

Each month a case is described that talks about testimony by the so-called "experts" who always find in their wisdom excuses to slay a colleague for his actions. They seem to always find a better alternative way of handling a case, but I do not believe they ever stop to think about the consequences of their purist opinions.

I do not argue that malpractice does not exist, but I do believe that in the majority of cases the lawyers would not have a case without these very inflexible opinions of what "should have been done."

I had my first exposure to "experting" a few years ago when I was asked to review a case for a defendant's attorney. I could not believe the opinions of the "experts." They seemed to forget that medicine is not a perfect science and that decision-making is based on probability and experience. But it seemed that their "retrospectoscope" always found obvious the "right way to do it" and "more likely than not" it was the defendant's fault.

Something else surprised me; the plaintiff's attorney had a collection of eight "experts" while the defendant's attorney was struggling to find one. It seems that we as physicians are not willing to testify for our colleagues, but the so-called plaintiff "experts" seem to be plentiful.

Who are these "experts?" Well, after ten years of being asked almost once a month to review a case for a defendant (once you do it one time your name seems to become popular), I have found out that there seemed to be two types of "experts":

The first type, also known as the "crusader," is usually a young physician, in academics, who knows everything, and his (there are very few female "experts") crusade seems to be to get rid of all imperfect physicians that practice in the world. Most of them have never been in private practice, but they always know the standard of care; in addition, a little financial incentive is always welcome. He is always sure of himself and very appealing to jury members, who feel he really knows his stuff.

The second type I call the "experienced," is usually an older physician who may have been in academics all his life and is now near retirement, maybe even with a professor's appointment, who also knows everything based on his experience. This type seems to venture to testify even in cases completely outside his field, but his age and experience seem to justify it. He can always use the extra income. Jury members love his paternalistic and calm nature.

What about the defendant "experts"? Why are they

so hard to find? Because most of them are honest, working physicians who are busy practicing and do not want to get involved in any litigation. It takes time, is aggravating to deal with depositions, and...who needs it?!

Well...we all need it: the day that the medical profession starts getting involved in litigation, the day that we speak up for ourselves and our colleagues, who are fallible, the day that we take the decision-making out of the hands of lawyers and "experts," and we practicing physicians tell the judges how it is in the real world—that day, superfluous litigation and unjustified trials will end. Haven't we put it off long enough?

I wish that all physicians will at least once in their life agree to review a case for an attorney. They may be surprised at what they find.

Name withheld at author's request

### Reply

Your characterization and classification of the hired gun that we call, with tongue in cheek, "plaintiff experts" is right on the mark. I could not agree with you more that these "physicians" forget who they are and certainly have no truck with our conviction that, indeed, we are our brothers' keeper.

However, I would like to set the record straight about the colleagues of yours and mine who are more than willing to stand shoulder to shoulder with those of us who are unfortunate enough to find ourselves the "defendant" in a malpractice lawsuit. Experts for our side are *not* hard to find!

The issue in all malpractice lawsuits is the "standard of care." When the medical record of the patient plaintiff substantiates that the care given conforms to that standard expected, defendant experts are plentiful. On the contrary, when the medical record does not demonstrate that the expected standard of care was given, our experts will not swear to an untruth. We would not expect them to do that. This differentiates our experts from those plaintiff hired guns who, it seems, will sell their testimony to the highest bidder and always find some reason to be critical of their physician colleagues.

Please let me take this opportunity to express my sincere appreciation to the many Tennessee physicians who are glad to review the medical record of an unfortunate friend and go to bat for him/her in the very frustrating agony of a medical malpractice lawsuit.

J. Kelley Avery, M.D., Chairman  
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CHARLES ED ALLEN

## *Life Support for Medicaid*

A problem in search of a solution is how to obtain a financial transfusion to sustain Tennessee's Medicaid program. The current infusion of money obtained through a gross receipts tax on hospitals is actually a tax on those patients who are able to pay for hospital services, either directly or through their insurance programs. This has been called a "sick" tax, meaning a tax on sick people, but one could argue that this is a "sick" approach to taxation.

A well-founded rumor indicates that legislation will be introduced in the next General Assembly to subject physicians' gross receipts to the tax. Medicaid reimbursement to physicians usually just about covers practice overhead with little or no compensation for our professional services. Most of us are willing to care for indigent patients if the numbers are not overwhelming. To tax physicians' gross receipts when we are already in effect donating our services is unreasonable. This approach is as illogical as it would be to support the food stamp program by taxing supermarkets.

As is true of most of our society's problems, no easy answer exists. If the citizens of the state favor having medical care available to the medically indigent, and I believe most of us do, the cost should be borne by all our citizens. Insistence on having Medicaid financing to rest on the shoulders of medical care providers can result only in increased medical care costs and reduced access to care.

The Tennessee Medical Association has been requested to provide recommendations for Medicaid restructuring and long-term financing to our state administration. Unnecessary utilization of Medicaid by some patients does occur, and a gatekeeper or medical home program could help control abuse of the system. Even with effective cost containment mechanisms, total Medicaid costs will continue to rise if the program is expanded to include additional medically indigent people.

A major flaw in Medicaid cost determination is the inclusion of nursing home custodial care expenses with medical expenses. Clearly much of nursing home costs is not medically related. A better evaluation of Medicaid funds expended for nursing home medical care could be obtained by cost accounting.

It is of little comfort that Tennessee is not alone in facing the Medicaid crisis. All states are having difficulty in paying for Medicaid. There is no quick and easy treatment for the Medicaid malady.

*Charles E. Allen, M.D.*

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NOVEMBER, 1992

# editorials

## The Passing of Mr. Music

I suppose who Mr. Music was depends upon whom you ask. Somebody may in fact have been born with that name, but I have never seen it as other than a pseudonym. That is how I use it here, anyhow. I believe it was George and Ira Gershwin who referred to each other as Mr. Music and Mr. Words, respectively. Other folks might have other preferences. Without prejudice against Mr. Gershwin, who is in fact one of my very favorite composers, I do.

Not only might the identity of Mr. Music depend on whom you ask; it would doubtless depend also on when you asked it. My brand new bride and I spent the winter and spring of 1945 in Columbus, Ohio, where I was serving my 9 months' internship prior to entering the Army. Shortly after Paris was freed from German rule that spring, word came that Capt. Glenn Miller had been lost in a flight from England to the European Continent. During those years word was forever coming that someone of importance either to oneself or to someone close by had been lost or killed, and so you learned to expect it, as with waiting for the other shoe to fall, and to live with it. With the rapid advance of the Allied forces, and what appeared to be the imminent downfall of the Third Reich, millions, literally, were looking toward the day when Glenn Miller's band would again be bringing us their incomparable music, and most of those millions felt his death deeply as a personal loss. Tex Beneke and Ray McKinley, who had been members of both the Glenn Miller Orchestra and the Glenn Miller Air Force Band, reconstituted the orchestra after the war and kept it going until the Big Band Era fizzled out, but without Glenn Miller it just wasn't the same. If in that dreary spring you had asked me, along with all those other destitute, who Mr. Music was, it is more than likely we, or at least most of us, would without hesitation have told you, "Glenn Miller; who else?" The Glenn Miller sound was, and is, the most easily identifiable of all the big band sounds; it was, in fact, unique, due almost entirely to Miller's skill as an arranger, at which he was unsurpassed.

At another time and in a different mood I might have told you Mr. Music was Leonard Bernstein. When Lennie was 25 years old, which was in 1944, he had a successful musical on Broadway, and made headlines when, as assistant conductor of the New York Philharmonic Symphony Orchestra, he substituted for its ailing maestro, Bruno Walter, to rave reviews in the *New York Times*. When I was 25, which was two years later, I was doctoring a bunch of fly-boys in Europe, courtesy of Uncle Sam. That was, in fact, no mean accomplishment, but it does pale by comparison. Some time later on, but not by much, Lennie wrote *West Side Story*, for my money one of the really great musicals, which in a sense is an opera, and also a real opera, *Candide*, which, like Cunigonde's baubles, is a real jewel. Then he left off writing. I have often wondered why, except that when I run out of ideas for editorials, which, though you might not have guessed, I sometimes do (or maybe you *can* tell), I at least have some notion. Perhaps he had said everything he had to say, but also maybe it was nothing like that at all. Maybe Mozart



and Schubert, had they survived longer than they did, would have accomplished nothing more of significance; then again, maybe not. Who knows? Lennie Bernstein (who started out as Bern-*steen*, and was called that back in the '40s, but he bowed to what was viewed as convention and died Bern-*stine*, since that's what everybody called him anyhow) certainly had a claim to the title. But the title isn't his, or at least not here.

Big bands and the big band sound are in again these days, and the young are rediscovering Glenn Miller, Benny Goodman (who really started it all), the Dorseys, and Harry James, to name just a few. Through the dry '50s, '60s, '70s, and on into the '80s one big band bridged the gap, and actually grew in popularity during those years, though it must be admitted that popularity was largely with the World War II generation. Lawrence Welk was considered "square" by the young "hip" generation—which he was always quick to confess he considered a compliment and not a slur. Though a contemporary of Glenn Miller and the others, he was in a sense a late bloomer, but like a lot of late bloomers, he proved more durable than the hotter items. This was due to no small extent to the very popular weekly *Lawrence Welk Show* on television, and the long association of many, even most, of the performers with the band. When Mr. Welk finally decided, at the age of 82, to close down the show and disband the orchestra in 1985, some of them had been with him for more than 30 years, and loyal viewers looked upon them almost as a part of their own family.

They—we—still do. I heard a new term recently: *Welkie*. The term is applied to loyal fans of Lawrence Welk, who are legion. Some years ago the Public Broadcasting Service (PBS), with the cooperation of Mr. Welk, began weekly rebroadcasts of some of his more popular shows, as chosen by the maestro himself. It has proved to be one of the most popular of all PBS programs, and in Nashville, at least, is, I understand, *the* most popular, and near the top, if not actually on it, for bringing in financial support to the channel. The Saturday 7 PM hour is sacrosanct at our house, though in these days of the VCR it is somewhat less than strictly observed. Either Mr. Welk or one of the stars of the show acts as the contemporary host, filling in viewers on the current activities of their favorites, many of whom are still active in the entertainment business. Several live in Nashville. The Christmas show is always one of presenting the Welk family of families.

When I leave town, I generally leave the world behind. I long ago discovered that neither it nor I would be any the worse off if neither of us kept up

with the other; and so I don't. I presume it doesn't either, and doubtless never did. Anything of importance I'll eventually find out about. The rest didn't matter, doesn't matter, and almost certainly won't ever matter; and that's the most of it.

One of the things I missed on such an occasion earlier this summer was that Lawrence Welk had died of pneumonia. My knowing it earlier would not have affected the outcome, or anything else, for that matter. As in World War II, it has again gotten to where word is forever coming that someone or another of more or less importance to me is no longer around, and this is just another such instance. Since Mr. Welk is still sometimes appearing as host on his shows, I presume the show segments were taped earlier; either that or else those folks know something I don't. The good news is that Lawrence Welk *is* still around, in that PBS will continue rebroadcasting the *Lawrence Welk Show*.

In case you are still wondering, for our purposes here and now, Lawrence Welk is, or was, Mr. Music. Mr. Music, rest in peace.

J.B.T.

## The Trouble With Thanksgiving

I was about to begin this piece with, "The trouble with Thanksgiving is. . .," but after giving it something more than the dilatory thought that sired it, I realized that the trouble is not with Thanksgiving, but with me. It's just that like maybe a lot of you I was having trouble coming up with something to be thankful for, let alone to admonish others to be thankful for, on this Thanksgiving Day. The times seemed to me badly out of joint at a time when their proper articulation is critical.

For starters, take the economy. (That has a chance of precipitating the old running gag, "No, you take it." "No, I said it first," and so on.) To use a slightly uncouth comment in the vernacular, the economy sucks. I think that perhaps couched in more genteel terms there might even be consensus there, something that isn't easy to come by these days. The supply of jobs, both blue collar and white, and even executive types, appears to be dwindling, due to no small extent to the relocation of many corporations offshore to take advantage of the tax breaks that the U.S. Congress, in a magnanimous mood, awarded such ventures in the 1986 Tax Relief Act, apparently without considering that such dislocations would render a lot of wage earners in this country non-wage earners. The only ones actually to be relieved were



the big corporations, which nobody but the corporate types and the Congress thought needed any relief. It cost everybody else, everybody else comprising almost all of those who thought they were going to be relieved. The President is, of course, being blamed for what was all Congress' doing.

Or take the environment. A lot of developers, strip miners, oil drillers and shippers, lumbermen, and even the Corps of Engineers, among others, have indeed been taking it, and a lot more that aren't taking it are trying to. Planet Earth hasn't a lot of votes, and its would-be protectors haven't nearly so much money as its despoilers, so that in any fight the environment is apt to come out second best, or third, or in whatever place is last. The main problem is that nearly all of us who say we wish the environment protected also want all of the things that require extensive participation by the environment, willing or not—as if the environment had anything to say about it, or would have had even if it could talk. The corporations and other suppliers are simply giving us what our buying habits show them we really want, which may or may not be the same as what we say we want. Although nearly everybody pays lip service to environmental protection, most want to define the limits of protection to suit themselves and not the environment. The EPA being the underfunded weak sister it is, and the recent Secretaries of the Interior being more attuned to big business than to preservation of our natural treasures or cleaning up the air and water, any victory for the environment, however small, is likely in the long run to be a hollow one.

Or, lastly, take the political situation. Now that the Iron Curtain and the Berlin Wall are down, and Communism has crumbled, or is widely considered to have crumbled, at any rate, it seems we are now our own worst enemy, if indeed we haven't been all along. By the time you read this, the 1992 elections will be history, and we will either have a new president or we won't. By and large, except for the media, who adhere like sticks in the mud (an appropriate term during this election campaign) to everything liberal, and treat anything conservative as a pariah, the electorate is wildly unenthusiastic about both candidates for the presidency. They are having a hard time reading the lips of either George or Slick Willy, considering the record. Some think neither candidate a conservative. Some like one vice-presidential candidate and not the other. Family values, God, abortions, the candidates' military service or non, along with everything else movable, are being tossed about with the abandon of a stevedores' picnic. (I don't really know how abandoned a stevedore picnic might be. The term just seemed catchy and not inappropriate,

since stevedores make their living tossing things around. It seems they have that in common with politicians. Then again, maybe "stable boys' picnic" would have served just as well, or maybe better, considering what is being tossed around.)

We are continually being barraged with messages that all is not lost, even though supplies of one thing or another are dwindling. Just shut out all extraneous signals and other distractions and think for a moment about the situation. The economy isn't great, to be sure, at least not right now. But one of the nation's problems is that not many people are still around who remember Black Friday and the Great Depression. A lot may have *read* about it, though maybe a lot more haven't; but not many *remember* it. Dwelling a bit on that might help lighten the burden of the times. The political situation? Again, not outstanding, maybe, or maybe even less than that, but is another country's better? And will any other's be better than ours after our election, regardless of its outcome?

And the environment. That is the real sticky wicket, because so much of everything else hinges on a healthy and a healthful Planet Earth. The entire population of the Earth is in this together, but most of the world's inhabitants either don't know what the environment is or are too busy trying simply to stay alive (and to procreate, or more accurately, to copulate, leading to procreation, which is perhaps the world's major problem) to give the environment much attention, if indeed any at all. It is all very well that we *say* we must stop acting as if we inherited all of these natural wonders and resources from our ancestors, and need to begin treating them as if we are borrowing them from our children instead. We have to start acting on it. On the other hand, that majority that we were just considering have no notion they are either inheriting or borrowing those resources, because they aren't, either way. This is not intended as a judgmental statement; it is only a statement of fact.

Well, consider all of those things on the day *before* Thanksgiving Day, and then lay them aside. Start Thanksgiving Day out fresh and refreshed, and turn to God as those who initiated the celebration did and intended that we should. The first were the Pilgrim Fathers, who thanked Him for a bountiful harvest after a tough year in which more than two-thirds of their little band had died. Abraham Lincoln was the first to declare an official day of thanksgiving; at the time, the nation was in the midst of the bloodiest and most costly war that has ever engaged it. The President's call was for a day of thanksgiving to God for this nation. Like the people living in those parlous times, some of us have problems that seem insurmountable, but likely few are greater than theirs.



A once-popular song proclaims, "Love makes the world go round, Love makes . . ." and so on. It of course does, but the love that makes it go is God's, which never sours, and not man's, which often does. The world would have stopped turning long ago were its turning dependent on man's sustained love. The fuel for every one of the problems facing mankind is greed. You name it: rape of the environment, rape of the economy, getting and staying elected regardless of cost to whom; and those are just the few we've mentioned. At the root of nearly all of our problems is spiritual poverty. Fortunately for us, God has provided a way out of the spiritual morass that man has created for himself, and for the world.

Here is my prescription for a happy Thanksgiving Day. In fulfillment of the proclamation for the day, give thanks to God for this nation, which with all its faults is still the best place in the world to live. The best way to find that out is to go to another one for a while. Then thank Him for whatever largesse is yours, keeping in mind that however little that may seem to be of health, wealth, or whatever else is yours, myriads have less, a great many of them much less, than even this nation's worst off.

Lastly, thank God for His greatest gift of all to His Creation: Himself, and His all-sustaining love.

J.B.T.

## Truth In Packaging

*Enjoy This Quality Product*

### Fig Bars

**INGREDIENTS:** High fructose corn syrup, wheat flour, fig paste, sugar, flaked corn grits, dextrose, partially hydrogenated soybean oil, corn syrup, salt, glycerine, leavening (sodium bicarbonate, ammonium bicarbonate), artificial flavor, citric acid, sorbic acid, lecithin, artificial color.

#### SATHERS' GUARANTEE OF SATISFACTION

**We want you to enjoy this quality product. If for any reason you are not satisfied, please tell us why, when, and where purchased . . .**

—Package Label, Sathers' Fig Bars

When I was growing up, we didn't have that most marvelous of culinary concoctions, the *Oreo*. How we survived I'll never know, but we managed to muddle through. What we did have were *Fig Newtons* (I've never been quite sure whether that is one word or two, but it doesn't matter). What we have

now instead is simply Fig Bars, included among which is the classic Fig Newton, I guess, which still exists as such. They are all more or less the same thing; I suppose it's just that the exclusive trademark expired. At any rate, as children we thought we were pretty lucky to have those. Our children also grew up on Fig Newtons, which in Childspeak was simply F'newtons. When Oreos came into existence I have no idea, but our children had those, too, and their heredity being what it is, they preferred them, though they didn't always get them.

What the F'newton did not have was the statement of particulars displayed above, which is a reasonable facsimile of what is on the package label of one set of generic fig bars. We always thought that with Fig Newtons we were getting figs, and maybe we were. In fact, most likely we were, but that is not the point. We thought we were, and rested easy in that assumption. What we are getting now I'm not quite sure. It certainly is not *just* figs and crust. We may, in fact, be getting as much figs now as then, and there may also have been just as much of that other stuff in the F'newtons. But that's not the point, either.

Now, I grant you there is more than one school of thought operating in this situation. The public, we are told, is crying out to be saved from all those harmful things people keep putting with the harmless things to improve their consistency, keep them fresh, and/or endow them with all those attractive attributes the marketers love (not that those attributes have necessarily to be there for marketers, who are not bound by convention, to say they are there). The ones who keep telling us that the public wants to be saved from all those things are none other than the professional watchdogs of the public welfare, who wouldn't have a job if it weren't for all those noxious things out there they have to keep warning us about. The public's interests are therefore distinctly divergent from theirs; in addition, they too act as if they are not bound by any convention not of their own making.

Despite all the stuff on the labels, and not because of it, folks mostly keep buying the things they like. Besides, despite all that stuff on the label, Sathers' Fig Bars really do taste good. In fact, most folks likely haven't even noticed what's on the label; I did so only out of boredom when I was finishing up a meal in solitude. This only goes to show that over the long haul the product to get sold has to stand on its own feet, and not on the label, despite what the marketers and Mr. Ralph Nader, et al, would have you believe.

Some folks do, of course, put great store in such things. Many of those folks are ageing hippies (now 40 or so years old), and others suffer from anorexia



nervosa. Others are frightened by their own shadows, and some people will just fall for anything. Those likely take vitamin supplements, too. Health food emporia manage to stay in business, and some actually seem to thrive. Organic gardening does, too—not that there is anything necessarily wrong with organic gardening. There is also nothing wrong with taking reasonable precautions. Among the things I classify as reasonable precautions is doing things to keep food from spoiling. In the absence of such efforts, diners can get a whole lot more things wrong with them than they will ever get from eating a few chemicals classified by the FDA as harmless but by them as not. The answer to spoilage, of course, is to irradiate all food, but then the mere mention of radiation sends some people, including most of those we have been talking about, into catatonic fits.

What else there is nothing wrong with is protecting the public; in fact, the public sorely needs protecting. On the other hand, it is not possible, and is to the contrary stultifying, strangulating, and counterproductive, to try to protect people from everything that might possibly happen to them. What efforts are to be made in that direction need to be determined by public health professionals, and not by individuals whose first interest is creating panic among the citizenry so as to protect their own jobs. There is a health need to have on packages the amount of sodium in the product, and maybe the cholesterol content, too. Neither of those appears on this one. All that other stuff is window dressing for the benefit of the marketers. Who, for example, but the cooks should care, or do care, what the leavening is? In this case, it is what it always has been: bakin' powder.

All that elaborate label did for me besides give me some trivia to occupy some idle time was get me to wondering what on earth "flaked" corn grits is, and what's in fig paste besides figs. Not that either matters. The fig bars taste like fig bars, look like fig bars, smell like fig bars, and, so far as I can tell, are fig bars, as the large print says. Like most fine print, and unlike only a smidgen of it, their fine print doesn't tell me anything I want, or even need, to know. Like almost all fine print, almost nobody reads it, because when they do, they, like me, find it didn't tell them anything.

People who have no regard for the law are known as scofflaws; prohibition was responsible for myriads of those. I have a new word for you: *scoffprints*. Unlike scofflaws, scoffprints, defined as ignorers of fine print, don't get into trouble, or at least they almost never do. I'll leave it to you to decide whether it was worth it or not.

J.B.T.



*Harry S. Anderson*, age 75. Died May 12, 1992. Graduate of University of Pennsylvania School of Medicine. Member of Chattanooga-Hamilton County Medical Society.

*Winston Braun*, age 74. Died September 13, 1992. Graduate of University of Arizona School of Medicine. Member of Memphis-Shelby County Medical Society.

*Malcolm E. Clark*, age 75. Died August 24, 1992. Graduate of University of Tennessee College of Medicine. Member of Overton County Medical Society.

*Fulton M. Greer Jr.*, age 54. Died September 11, 1992. Graduate of University of Tennessee College of Medicine. Member of Williamson County Medical Society.

*Huey Thomas Holt*, age 57. Died August 29, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

*A. Wilson Julich*, age 69. Died August 29, 1992. Graduate of University of Tennessee College of Medicine. Member of Memphis-Shelby County Medical Society.

*Joseph Searle McMurry*, age 62. Died September 18, 1992. Graduate of Vanderbilt University School of Medicine. Member of Knoxville Academy of Medicine.

*Henry Brenckmann Ruley*, age 78. Died September 4, 1992. Graduate of Harvard Medical School. Member of Roane-Anderson County Medical Society.

*Phillip C. Schreier*, age 95. Died September 2, 1992. Graduate of University of Pennsylvania School of Medicine. Member of Memphis-Shelby County Medical Society.



The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

#### **CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE**

*Stephen Franklin Daugherty, M.D.*, Jackson

#### **KNOXVILLE ACADEMY OF MEDICINE**

*John Franklin Cooper, M.D.*, Knoxville  
*Gregory Mark Mathien, M.D.*, Knoxville  
*Richard S. Smith, M.D.*, Knoxville

#### **NASHVILLE ACADEMY OF MEDICINE**

*B. Rentz Dunn Jr., M.D.*, Nashville  
*Marcel R. Estopinal, M.D.*, Nashville



George Alan Hill, M.D., Nashville  
 Richard Allen Howerton, M.D., Nashville  
 Susan M. Jacobi, M.D., Nashville  
 Jennifer Lynne Oakley, M.D., Nashville  
 Deborah D. Sherman, M.D., Nashville  
 Volker Striepe, M.D., Nashville

#### MONROE COUNTY MEDICAL SOCIETY

John D. Gazewood, M.D., Madisonville

## personal news

Peter L. Blanc, M.D., Winchester, has been certified as a Diplomate of the American Board of Surgery in the specialty of Vascular Surgery.

S. Terry Canale, M.D., Memphis, has been appointed editor of the five-volume text, "Campbell's Operative Orthopaedics," what the AMA refers to as the gold standard of orthopedics. Dr. Canale succeeds Hoyt Crenshaw, M.D., who died days after editing the most recent edition and who had edited five of the text's last eight editions.

Ron E. Pruitt, M.D., Nashville, has been elected a Fellow of the American College of Physicians.

Jon A. Simpson, M.D., Crossville, has been certified as a Diplomate of the American Board of Orthopaedic Surgery.

The following TMA members have been certified as Diplomates of the American Board of Internal Medicine in the specialty of Geriatric Medicine. Charles Aubrey Isham, M.D., LaFollette; James G. Stensby, M.D., Winchester.

## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during August 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

James A. Burdette, M.D., Lenoir City  
 Michael P. Casini, M.D., Memphis  
 Samuel M. Currin, M.D., Hixson  
 John W. Ellis Jr., M.D., Jefferson City  
 Guy F. Fain III, M.D., Chattanooga  
 Walter W. Frey, M.D., Nashville  
 Bevely D. Holt, M.D., Greeneville  
 Nancy E. Kahn, M.D., Nashville  
 David H. Knott, M.D., Memphis  
 Wendell V. McAbee, M.D., McMinnville  
 Salwa Moustafa, M.D., Memphis  
 Hugo C. Pribor, M.D., Nashville  
 Fred Ralston Jr., M.D., Fayetteville  
 Geoffrey H. Smallwood, M.D., Nashville  
 Dean G. Taylor, M.D., Brentwood  
 Charles E. White, M.D., Memphis

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

- |          |  |
|----------|--|
| Dec. 2-5 | California Seminars in Pathology (sponsored by Calif Soc of Pathologists)—Park Fifty Five Hotel, San Francisco |
| Dec. 4-6 | American Academy of Psychiatrists in Alco-   |

- |                |  |
|----------------|--|
|                | holism & Addictions—Sheraton El Conquistador, Tucson   |
| Dec. 4-8       | American Society of Hematology—Anaheim, Cal.   |
| Dec. 4-10      | American Epilepsy Society—Westin Hotel, Seattle  |
| Dec. 19-Jan. 2 | Medical-Legal Seminar (sponsored by Pittsburgh Inst of Legal Medicine)—Kea Lani Hotel, Maui        |
| Jan. 10-12     | Arizona Cancer Center International Workshop on Chromosomes in Solid Tumors—Doubletree Inn, Tucson |
| Jan. 21-24     | Southern Society for Pediatric Research—Hyatt Regency, New Orleans                                 |



Happy  
Thanksgiving

# American Medical Association

Physicians dedicated to the health of America



## For Your Benefit

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### AMA Successfully Obtains 90 Day CLIA Grace Period

The American Medical Association successfully persuaded HCFA to grant a 90-day grace period for the Clinical Laboratory Improvement Act of 1988 during which Medicare claims will NOT be denied if your CLIA registration number is omitted. Health and Human Services Secretary Louis Sullivan, MD,

also upheld the AMA's objections to unannounced surveys of physicians' office labs saying that those investigations will take place only if a problem is suspected or a complaint is filed. Routine surveys during the first 2-year cycle will be educational.

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### AMA Is Your Advocate in Washington

Physician Advertising. The AMA General Counsel's Office is negotiating with the Federal Trade Commission to develop guidelines for physician advertising. The FTC's Bureau of Competition has approved all the AMA's proposed guidelines and is discussing the last one which deals with claims about the physician's board certification credentials.

Safety Regulations. The AMA urged the Senate Labor Committee to exempt physicians from proposed federal legislation, S. 1622, requiring employers to develop safety and health programs for employees. The AMA pointed out that these regulations duplicate those

existing Occupational Safety and Health Administration requirements that apply to physicians.

HIV Disease. In a letter to the Social Security Subcommittee of the House Ways and Means Committee, the AMA supported legislation that would make it easier for people with HIV disease to receive Social Security disability benefits.

Practice Parameters. The AMA addressed the Agency for Health Care Policy and Research outlining the AMA's views on translating clinical practice guidelines into medical review criteria, standards of quality and performance measures.



# The AMA and Our Alliance for Medical Liability Reform

Arguments for national medical liability reform have never been stronger; the current liability system not only drives up costs, but steers many physicians away from high risk specialties where malpractice suits are almost certain. For those who need care the most,—the young, poor and the elderly,—medical treatment is out of reach.

The American Medical Association has taken the lead and launched the *Alliance for Medical Liability Reform*, a grassroots alliance for change. Its goals are to restore fairness to our justice system, to control high health care costs and to turn up the volume on medical liability in the national health care reform debate.

Working with business, public health and other health care organizations, the AMA has already established the *National Liability Reform Coalition* to carry our message to Washington. At the grassroots level, the *Alliance* will continue to bring these issues to both Congress and the White House, to fight rising liability costs and end the need for defensive medicine.

You know that patient liability claims have more than doubled since the early eighties. Yet, most of these claims show no evidence of negligent medical care. But because liability premiums became the fastest growing practice expense, many cut back on staff, reduced services resulting in diminished access to care by their patients.

The following principles, developed by the *National Medical Liability Reform Coalition*, serve as reliable guidelines

for systematic, structured reform we can all live with. We need compensation for medical injury that provides...

1. **Available Health Care**, giving all Americans access to all necessary health care services.
2. **Quality Health Care**, that hinders substandard care and encourages quality improvements.
3. **Better Physician-Patient Relationships**, to enhance the professional relationship between physician and patient based on trust.
4. **Fair Compensation**, that is ample and just for patients injured by malpractice.
5. **Prompt Claims Resolution**.
6. **Innovation** in diagnosis and treatment, leading to continuous quality improvement.
7. **Predictable Outcomes** with respect to findings of liability and amount of rewards.
8. **Efficient and Economical Transaction Costs**.

The need for national medical liability reform has never been more pressing. The *Alliance* is gearing up to take this message to Washington. All that's missing is you! Take the first step and join our *Alliance* today. By uniting the concerned physicians of the AMA and their patients for reform, the *Alliance* will be a tremendous force for change in this decade. To join, call us toll free at 1-800-AMA-3211.

TMA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) as a sponsor of continuing medical education for physicians. Nonaccredited organizations may request TMA's joint sponsorship of CME activities. As an accredited sponsor, TMA is authorized to designate certain CME activities for credit in the AMA Physician's Recognition Award Program.

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

### VANDERBILT UNIVERSITY MEDICAL CENTER

#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Dec. 3-5	Lasers in Otolaryngology: Head and Neck Surgery
Dec. 11-12	18th Annual High Risk Obstetrics Seminar
Jan. 31-Feb. 5	Practical Aspects of Diagnostic Radiology/Medical Imaging VI—Snowmass Village, Colo.
Feb. 28-Mar. 5	Infectious Diseases—Snowmass Village, Colo.
March 1-2	Vanderbilt/Tennessee Annual Perinatal/Neonatal Meeting
March 5-6	Management of Chronic Airway Obstruction

April 2-3

Functional Endoscopic Sinus Surgery Workshop 1993

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

Dec. 4-5	Laparoscopic Hysterectomy: Hands-On Training Workshop
Jan. 14-17	Hypertension in Pregnancy
Jan. 15-16	Laparoscopic Hysterectomy: Hands-On Training Workshop
Feb. 8-11	Update in Obstetrics and Gynecology—Grand Cayman Island
Feb. 14-19	Clinical Medicine—Kauai, Hawaii
Feb. 19-20	Laparoscopic Hysterectomy: Hands-On Training Workshop
Feb. 20-21	Radiology Conference
Feb. 25-27	Seating the Disabled
March 6-13	Surgical Gynecology and Obstetrics—Steamboat Springs, Colo.
March 13-19	26th Annual Review Course for the Family Physician
March 25-27	Southern Society for Research in Psychiatry
April 1-3	Symposium on Critical Care & Emergency Medicine—Hot Springs, Ark.
May 6-7	Update 1993
May 6-7	General Surgery Update
July 31-Aug. 7	Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.
Sept. 8-10	25th Memphis Conference on the Mother, Fetus, and Newborn



### Knoxville

- April 4-7 The National Sportsmedicine Conference '93—Orlando  
April 17-18 Dermatology Conference  
April 17 Ophthalmology Conference  
May 3-5 16th Annual Family Practice Update & Review—Gatlinburg  
May 21-23 14th Otolaryngology for the Primary Care Physician—Gatlinburg  
June 8-9 Pediatric Advanced Life Support Provider's Course—Gatlinburg  
June 10-12 38th Great Smoky Mountains Pediatric Seminar—Gatlinburg  
June 30-July 2 99th Upper Cumberland Medical Society Meeting—Fall Creek Falls, Pikeville  
Sept. 13-15 15th Annual Obstetric Office Ultrasound Workshop  
Nov. 11-12 10th Annual Alzheimer's Disease Symposium—Gatlinburg

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

### ST. THOMAS HOSPITAL

- Dec. 3-4 Management of the Critically Ill Patient

For information contact Beverly Upchurch, Conference Specialist, St. Thomas Hospital, PO Box 380, Nashville, TN 37202, Tel. (615) 386-2007.

## IN SURROUNDING STATES

### WASHINGTON UNIVERSITY—MISSOURI

- Dec. 5 Hypertension  
Dec. 12 Management of Hypercholesterolemia  
Feb. 27 Women and Men in Health Care  
March Malpractice  
March 27-29 Aesthetic Plastic Surgery: Facial and Body Contouring

For information contact Cathy Caruso, Office of CME, Washington University School of Medicine, Box 8063, St. Louis, MO 63110, Tel. (800) 325-9862.

## OF SPECIAL INTEREST

### MRI EDUCATION FOUNDATION, INC.

- Jan. 14-17 Intense MRI Neuro Weekend—Cincinnati  
May 6-9 Intense MRI Ortho Weekend—Cincinnati  
Sept. 19-24 Intense Total Body, Ortho, Neuro MRI Review—Cincinnati  
Oct. 28-31 Intense MRI Ortho Weekend—Cincinnati

For information contact Tom O'Connor, Director, MRI Education Foundation, Inc., 2600 Euclid Ave., Cincinnati, OH 45219, Tel. (800) 282-3404.



## FLIGHT SURGEONS WANTED.

Discover the thrill of flying, the end of paperwork and the enjoyment of a general practice as an Air Force flight surgeon. Take flight with today's Air Force and discover quality benefits, 30 days of vacation with pay each year and the support of a dedicated staff of professionals. Enjoy a true general practice on the ground, with the kind of stimulating challenge that will get your medical skills airborne. Talk to an Air Force medical program manager about becoming an Air Force flight surgeon. Call

**USAF Health Professions**  
**Toll-Free**  
**(800) 423-USAF**



## ALASKA

Immediate openings for physicians in the following disciplines: General Surgery, Internal Medicine, ENT, Ob-Gyn, Neurology, Family Practice, Orthopedics, and Psychiatry. Metropolitan, rural, and cross-cultural opportunities. Maximum recreational, quality of life, and practice development opportunities. Relocation and practice start-up assistance.

For information contact: Alvin D. Finneseth, Ph.D., MedSearch, 821 "N" Street, Suite 204, Anchorage, AK 99501. Phone (907) 276-5707; Fax (907) 279-3731.

## RECRUITER/MARKETER

Growing medical group seeking a highly motivated and energetic healthcare professional to manage and develop a recruitment division. Excellent communication skills and the ability to interface with physicians and hospital executives are prerequisites. Must have 5+ years experience in management and/or marketing in the healthcare field. Advanced degree preferred. Responsibilities include management of recruitment program and marketing recruitment package. Competitive compensation with excellent benefit package.

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# *Ovarian Epithelial Tumor of Low Malignant Potential in an Adolescent*

DORWIN T. MOORE, M.D.

## **Introduction**

Primary epithelial tumors of the ovary account for less than 25% of the ovarian neoplasms occurring in patients prior to the age of 20.<sup>1-4</sup> Reports in the English literature on ovarian tumors in adolescents are infrequent and complicated by imprecise documentation of the patient's age and the ovarian tumor's histologic classification. The ovarian epithelial tumors display a continuum of morphologic features exhibiting characteristics varying from benign to malignant. An intermediate group, the tumor of "low malignant potential" or the "borderline malignancy," was introduced by Taylor in 1929 as a "semi-malignant tumor."<sup>5</sup> Taylor described a hyperplastic variety of papillary serous cystadenoma associated with peritoneal implants that could be easily confused with serous adenocarcinoma, but behave in a benign fashion. In 1961 the International Federation of Gynecology and Obstetrics began developing a histologic classification of common ovarian epithelial tumors and incorporated this intermediate category, effective 1971. In 1973, the World Health Organization included "tumors of borderline malignancy or low malignant potential" in its classification of ovarian tumors.<sup>6</sup>

The histologic features common to serous epithelial ovarian tumors of low malignant potential (LMP)

include complex branching and interlacing papillary fronds with epithelial lining that is usually two or more cell layers thick and often heaped into epithelial tufts. In contrast, benign serous cystadenomas are composed of discrete papillary stalks with little tendency to branch or interlace, consisting rather of a more orderly epithelial lining usually one or two cell layers thick and without tufting. The key feature that delineates the borderline tumor from the well-differentiated cystadenocarcinoma is its lack of ovarian stromal invasion by neoplastic epithelial elements.<sup>6-8</sup> Psammoma bodies may be found, but mitoses, necrosis, and pleomorphism are absent. Another striking feature of the serous borderline tumors is their high incidence of bilaterality, ranging in various series from 26% to 50%. This bilateral involvement is considered by some a synchronous development of two primary neoplasms rather than metastases because of (1) the lack of characteristic features of metastatic tumor and (2) the survival rates, which are the same as for unilateral neoplasms. Peritoneal biopsies taken during the staging process often display the lack of the invasive characteristics of metastatic disease, strongly suggesting an in situ tumor origin.

There is fair agreement that the overall survival rate for women with serous tumors of borderline malignancy is 90% to 97%, and the ten-year survival rate is between 75% and 90%. There is a consensus that women with stage I disease have a five-year survival rate in excess of 97%, with the ten-year survival for such persons between 73% and 95%.<sup>9</sup> These survival rates, especially the ten-year rates, are

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based on a small population size and potentially an insufficient staging process which is reflected in the increase of stage III disease in a series by Kliman et al in 1986.<sup>9-11</sup>

An important consideration to be addressed, especially in the early reproductive age group, is the mode of therapy. It is agreed that proper staging is essential. Yet in a patient under 20 years of age there is no well-defined plan of management of a unilateral serous borderline tumor. Unilateral salpingo-oophorectomy with a contralateral wedge biopsy is recommended, since it is reported that 7% of normal appearing ovaries will have histologic evidence of disease.<sup>9</sup> This case is what we believe to be the second one reported of a serous tumor of the ovary of LMP in an adolescent less than 15 years of age.

## Case Report

A 14-year-old (date of birth Dec. 4, 1976) girl went to her family physician in December 1990 complaining of vague right flank pain and nocturnal enuresis. She was treated for a urinary tract infection and given desmopressin acetate 0.01% for the enuresis. In May 1991, she went to the local emergency room complaining of several days of nausea and vomiting, diarrhea, and fever to 101.2°F; her admitting diagnosis was urinary tract infection and moderate dehydration. A cystogram was performed which revealed a pelvic mass with bladder compression. Pelvic computerized tomography and ultrasound confirmed a 21 × 14 × 11-cm right adnexal mass and normal left adnexa and uterus. Both serum carcinoembryonic antigen (<0.7 ng/ml) and CA 125 (16 U/ml) levels were in the normal range. At exploratory laparotomy, a right salpingo-oophorectomy, appendectomy, and a wedge resection of the left ovary were performed on May 28, 1991. The right ovarian mass measured 21 × 14 × 11.5 cm and weighed 2,063 gm. Histologic examination revealed an ovarian serous cystadenoma of borderline malignant potential involving both ovaries. On a follow-up visit three months later a palpable left adnexal mass was detected and confirmed by ultrasound as a 10 × 8 × 7-cm ovarian mass. The patient was referred for further evaluation to a gynecologic oncologist on Oct. 1, 1991 and a staging laparotomy was performed on Oct. 16, 1991; it included pelvic and pericolic gutter washings, left salpingo-oophorectomy, multiple peritoneal biopsies, subtotal omentectomy, and selective pelvic and para-aortic lymphadenectomy. The pelvic washing and the left pericolic washing cell block and smear were positive for neoplastic cells. The left ovary measured 9 × 7 × 6 cm and had a mostly smooth surface with one small surface nodule 3 × 2.5 × 1 cm, which was a serous tumor of LMP. The fallopian tube and other tissues were negative for disease. The diagnosis was stage IC ovarian serous cystadenoma of LMP. The postoperative hospital course was unremarkable. Prior to discharge she was assigned to Protocol No. 72 of the Gynecology Oncology Group, an observation only category.

## Discussion

The question that always arises in such cases is whether to perform a hysterectomy on a woman who

has not completed her child bearing.<sup>12-14</sup> It has been documented that women without viable ovarian tissue may successfully establish and maintain a pregnancy through ovum donation.<sup>15</sup> Surgery is the primary mode of therapy, and adjunctive chemotherapy is a consideration for most malignant diseases, but adjunctive therapy in a borderline malignancy is possibly non-beneficial in two ways: the response rate is slow, and impairment of the cell-mediated immunity may enhance tumor growth.<sup>9,16,17</sup> Our patient received proper surgical staging and bilateral salpingo-oophorectomy. Some believe that hormonal therapy should not stimulate further growth of the malignant process yet decrease natural gonadotrophin release.<sup>18</sup> We debated whether or not to give the patient hormonal replacement therapy, and decided against it for the present.

We believe this to be the second case reported in literature of an ovarian serous cystadenoma of LMP in a young patient less than 15 years old.<sup>19,20</sup>

## Acknowledgment

I thank Charles Suggs III, M.D., Division of Oncology, Erlanger Medical Center, for reviewing this manuscript.

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# A Refractory Case of Herpes Gestationis

E. SCOTT SILLS, B.A. and WILLIAM C. MABIE, M.D.

## Case Report

An 18-year-old white gravida 2, para 1 gradually developed pruritic, erythematous macules and bullae in a periumbilical and lower extremity distribution beginning at 30 weeks' gestation. The pregnancy had been uncomplicated before the onset of these symptoms. Her first pregnancy by the same husband was uneventful. No autoimmune disorders were known to be present in the patient or her family. Punch biopsy of the skin lesions established the diagnosis of herpes gestationis (HG) by direct immunofluorescence. Histocompatibility leukocyte antigen (HLA) assay identified HLA-DR4 and DR7 antigens. As an outpatient initially she experienced some relief of symptoms from prednisone 60 mg/day and 0.1% triamcinolone. Weekly antepartum fetal heart rate monitoring was begun at 30 weeks' gestation. By the 35th week the patient's rash covered the entire trunk and all extremities. She complained of intense itching as her response to oral and topical corticosteroids declined.

The patient was admitted to our hospital, where ultrasound measurements were consistent with a 35-week gestation. Amniocentesis confirmed fetal lung maturity. The patient became increasingly restless and continued to complain of severe itching. Induction of labor resulted in vaginal delivery of a 2,300-gm female infant with Apgar scores of 7 and 9. The placenta weighed 430 gm. No cutaneous lesions were seen on the baby at delivery.

By the first day postpartum the mother's rash appeared quiescent as her pruritus improved. She was discharged taking prednisone 60 mg/day and hydroxyzine on postpartum day 2.

During her first day of life the baby developed a macular rash involving the nose and trunk, and by 4 days of age the lesions had become small, flat, and crusted; by day 5 they had disappeared. The infant received no corticosteroids and was discharged at 6 days of age receiving no medications.

On the ninth day postpartum the mother was readmitted for an exacerbation of her disease. A large number of tense vesicles, 2 to 3 cm in diameter and in various stages, covered her entire body. The plantar aspects of both feet were particularly affected (Fig. 1), which prevented her from walking. Oral and topical corticosteroids were initially maintained, then the prednisone was increased to 40 mg three times a day, but with little apparent improvement. Oral dapsone 50 mg daily provided some relief from her itching, and on the 20th day postpartum she was discharged, taking dapsone 50 mg and prednisone 60 mg daily.

The patient has been followed for one year postpartum. Her lesions required ten months to resolve. Because of poor response to therapy, at four months postpartum biopsy was repeated to confirm the diagnosis. Dapsone therapy was maintained at 100 mg/day for four months and was stopped seven months postpartum. Prednisone was tapered and withdrawn at ten months. The infant has done well.

## Discussion

HG is an autoimmune vesiculobullous disease of unknown etiology in which maternal and occasionally fetal skin are damaged by deposition of antibodies. Estimates of the incidence range from 1 in 3,000 to 1 in 60,000 pregnancies<sup>1</sup>; it is probably closer to the latter. The pathogenesis includes genetic and hormonal factors. Genetic predisposition is indicated by certain HLA markers being found with increased frequency in individuals developing HG. The greatest risk is associated with HLA-DR3 (found in 61% of HG patients), HLA-DR4 (found in 52%), and HLA-DR3 plus DR4 (found in 43%). Neither of these antigens, however, either alone or in combination is necessary or sufficient to cause the disease.<sup>2</sup> Our patient had HLA-DR4 antigen as well as another marker of doubtful significance, DR7. HLA-DR3 and DR4 have been associated with other autoimmune disorders including type 1 diabetes, Addison's disease, Hashimoto's thyroiditis, chronic active hepatitis, and dermatitis herpetiformis.<sup>3</sup> This suggests that the genes responsible for the abnormal immune response in HG are located near the HLA-DR3 and DR4 region of chromosome 6. Whether the disease results from failure to suppress antibody production or from impaired clearance of immune complexes is unknown. The HG factor is an immunoglobulin G (IgG), which fixes complement by both the classic and alternate pathways. It crosses the placenta and has been demonstrated in fetal skin lesions. It also cross reacts with the basement membrane zone of fetal amniotic and chorionic epithelium.<sup>4</sup> Ortonne et al<sup>4</sup> speculate that the pathogenesis of HG involves autoimmunity to paternal antigens derived from fetal cells entering the maternal circulation during trophoblastic invasion of the myometrium. Sex hormones may contribute to the pathogenesis. Estrogen enhances and progesterone suppresses antibody response. HG has been reported to recur in patients taking estrogen-containing oral contraceptives, and to flare during menstruation.

Clinical manifestations usually begin gradually in the second or third trimester with the development of plaques, vesicles, and bullae, but they may begin

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**Figure 1.** Herpes gestationis. Note large bulla on plantar aspect of foot.

suddenly or develop postpartum. Occasionally, bullae are not present, and a skin biopsy is required to differentiate HG from pruritic urticarial papules and plaques of pregnancy (PUPPP). Lesions usually begin about the umbilicus or on the extremities. The palms and soles are frequently involved, but the mucous membranes and face are rarely affected. Itching is intense and invariable. The disorder may occur with the first pregnancy or only after several pregnancies. It tends to recur earlier and more severely in subsequent pregnancies, but it may also skip pregnancies. In the pregnancies it has appeared to skip, however, biopsies of clinically unaffected skin taken at the time of delivery reveal linear complement deposition along the basement membrane zone.<sup>5</sup> HG occurs with hydatidiform mole and choriocarcinoma. It has recurred in subsequent pregnancies by different husbands. The disease may flare postpartum, but it is unclear whether a prophylactic increase in corticosteroid dosage is indicated. HG commonly lasts about six weeks and heals without scarring. Rarely it has lasted as long as 12 years. Fetal skin is affected in 5% to 10% of cases. The disease in the newborn is usually self-limited, lasting only a few weeks.<sup>3</sup>

Direct immunofluorescence of perilesional skin reveals the third component of complement deposited along the basement membrane zone in a linear band.<sup>4</sup> The diagnosis of HG should not be made without this finding. Deposits of IgG are found in the same area in 40% to 50% of HG patients. The differential diagnosis includes PUPPP, contact dermatitis, erythema multiforme, and dermatitis herpetiformis.<sup>5</sup>

Treatment usually consists of oral prednisone 40 to 60 mg/day, although doses up to 180 mg/day have sometimes been required. The dose is tapered as tolerated by the patient. Topical corticosteroid is not very effective in this disorder. Other useful drugs include antihistamines, azathioprine, and dapsone.

Plasmapheresis has been reported in two patients.<sup>3</sup>

The effect of HG on fetal morbidity and mortality is controversial. Kolodny<sup>6</sup> in 1969 concluded that there was no increase in abortion or stillbirth, but in 1978 Lawley et al<sup>7</sup> reported a 7.7% stillbirth rate and a 23% prematurity rate. Their 40 cases were drawn mostly from the literature and the study was criticized as biased because of selective reporting of bad cases. Holmes et al<sup>8</sup> studied 24 cases and Shornick et al<sup>5</sup> studied 28; neither found an increase in spontaneous abortion or stillbirth. Holmes and Black<sup>9</sup> pointed out that the most sensitive measure of placental insufficiency might be birth weight. Recently, Shornick and Black<sup>10</sup> combined their data in 74 patients encompassing 256 pregnancies and compared their involved with their uninvolved pregnancies. HG was not associated with an increase in abortion or stillbirth, but it was associated with an increase in prematurity and intrauterine growth retardation. Serial ultrasound biometry and antepartum fetal heart rate monitoring are probably indicated in the management of pregnancies complicated by HG.

Our patient had severe disease which was exacerbated postpartum. Dapsone appeared to add a beneficial effect to the prednisone. Dapsone is believed to have its anti-inflammatory effect by inhibition of cytotoxicity induced by the myeloperoxidase-peroxide-halide system. It is safe in pregnancy. Major side effects are uncommon, but include hemolysis, agranulocytosis, hepatitis, and peripheral neuropathy.

Contraception is difficult in these patients. Estrogen-containing birth control pills may be well tolerated, but in 20% to 50% of cases they cause an exacerbation of HG.<sup>3</sup> We are unaware of any studies of progesterone-only oral contraceptives, Depo-Provera, or Norplant in patients with HG. A trial of a progesterone-only pill might be undertaken to see how the patient will tolerate progestogen therapy. A barrier method or an IUD are other suitable alternatives. As our patient did, many patients elect surgical sterilization.

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# An Uncommon Cause of Chest Pain

### Case Report

The patient was a 35-year-old white man complaining of severe shortness of breath. He noted an episode of flu-like illness characterized by fever and myalgia without respiratory symptoms lasting one week. It had spontaneously subsided three weeks before his visit. During the five days preceding that visit, progressive dyspnea with orthopnea associated with mild chest pain developed; it was exaggerated by leaning back and relieved by bending forward. He denied cough, sputum production, or recent fever.

A traumatic splenic fracture was repaired without splenectomy five years earlier. He had a remote history of intravenous drug use.

On examination his temperature was normal, systolic blood pressure 70 mm Hg, palpable with marked pulsus paradoxus, pulse 106/min, and respirations 30/min. He was a thin man in severe respiratory distress. The skin had multiple tattoos. Examination of the chest revealed decreased breath sounds at the right base but was otherwise normal to auscultation. Heart sounds were distant and muffled. No murmur or rub was heard. Jugular veins were distended to the angle of the jaw. Examination of the abdomen was normal. There was no peripheral clubbing, cyanosis, or edema. The neurologic examination was normal.

His leukocyte count was 10,300/cu mm with a marked left shift; no Howell-Jolly bodies were seen. Creatinine was 1.0 mg/dl, albumin 1.7 gm/dl, AST 139 IU/L, bilirubin 2.4 mg/dl, alkaline phosphatase 61 IU/L. Arterial blood gas analysis while breathing 3 L oxygen through nasal canula showed pH of 7.57,  $P_{CO_2}$  28 mm Hg, and  $P_{O_2}$  70 mm Hg. Portable chest radiogram revealed massive cardiomegaly and a right pleural effusion. The lungs were otherwise normal. Electrocardiogram revealed sinus tachycardia, diffuse ST segment elevation, and PR segment depression.

A two-dimensional echocardiogram revealed a large pericardial effusion and right ventricular collapse. Pericardiocentesis with placement of a pigtail catheter produced purulent fluid with a leukocyte count of 39,200/cu mm, 82% neutrophils, protein 4.7 gm/dl, glucose 40 mg/dl, LDH 5,175 IU/L. The Gram stain revealed lancet-shaped Gram-positive diplococci. Similar purulent fluid was obtained through a right thoracotomy tube.

The patient was treated with high-dose antibiotics directed against Gram-positive organisms. Blood cultures grew *Streptococcus pneumoniae*. No organism was shown in cultures of the pericardial fluid. Hepatitis B surface was positive as was core antibody. Surface antibody was negative. HIV ELISA was negative. A thoracotomy was performed, with decortication and creation of a pericardial window. His hospital course was uncomplicated. He was discharged in satisfactory condition.

### Discussion

The pericardium, among its other functions, serves as a barrier against surrounding inflammation and infection. Purulent pericarditis occurs infrequently. It may be

rapidly fatal if not recognized early.<sup>1,2</sup>

The frequency of pyogenic pericarditis has changed dramatically since the introduction of antibiotics into clinical medicine. It was previously a well-recognized, albeit uncommon, complication of bacterial infection elsewhere, but with the introduction of antibiotics it became quite unusual. Recently there has been a resurgence of purulent pericarditis, especially in children, the immunocompromised, and those with underlying pericardial disease as in uremia or after cardiac surgery. There seems to have been a shift from a 4:1 predominance in male subjects to an equal distribution between the sexes.<sup>3</sup>

Routes of inoculation include direct extension from an intrathoracic infection or from the myocardium following surgical or traumatic penetration of the pericardium, and through the blood stream.<sup>1</sup> Purulent pericarditis may complicate pneumonia, meningitis, osteomyelitis, otitis media, or cellulitis. Before the introduction of antibiotics, *S. pneumoniae* was the most common cause of pericarditis. Now, however, there is a wide variety of organisms: 32% are Gram-negative, predominantly *Escherichia coli*, proteus, pseudomonas, and *Klebsiella*; 22% are *Staphylococcus*, and 22% are *Streptococcus*, one-half of them *S. pneumoniae*. There is a wide range of unusual infections by other bacteria, fungi, parasites, and mycobacteria.<sup>3</sup>

The diagnosis of pericarditis may be difficult. Symptoms and clinical findings may be minimal and subtle. They may be attributed to coexisting infection elsewhere. Fever is the most common finding in 88%. Dyspnea, pulsus paradoxus, hepatomegaly, increased central venous pressure, and chest pain are each present in almost two-thirds of patients.<sup>3</sup> A pericardial friction rub occurs in less than half.<sup>2</sup>

Nearly all patients have leukocytosis, tachycardia, and a pericardial fluid collection on echocardiogram. Approximately 70% have cardiomegaly and electrocardiographic changes in the ST segment. Only 23% have classic ST elevation. Pleural effusion is present in just under half. Pericardial fluid is an exudate, containing predominantly neutrophils, with low glucose and elevated LDH.<sup>3</sup>

The diagnosis of pericarditis is often more difficult in the immunosuppressed patient. Frequently there is no fever or leukocytosis, and the presentation may be more indolent. Unusual organisms may cause the infection.<sup>3</sup>

It is generally agreed that combined medical and surgical treatment produces better results than treatment

Presented by David A. Welsh, M.D., medical resident, Vanderbilt University Hospital, Nashville.

with antibiotics alone. It is less certain as to whether the creation of a pericardial window or the more radical pericardectomy produces better results.

This case illustrates many of the characteristics of pyogenic pericarditis. It is not known why the pericarditis developed. The patient possibly had a well-tolerated pneumococcal pneumonia, with empyema extending directly into the pericardium. It is possible that chronic hepatitis produced immunosuppression, but the liver

dysfunction may well have been a complication of the pneumococcal infection. Hyposplenism following past repair of his damaged spleen is unlikely in the absence of Howell-Jolley bodies.

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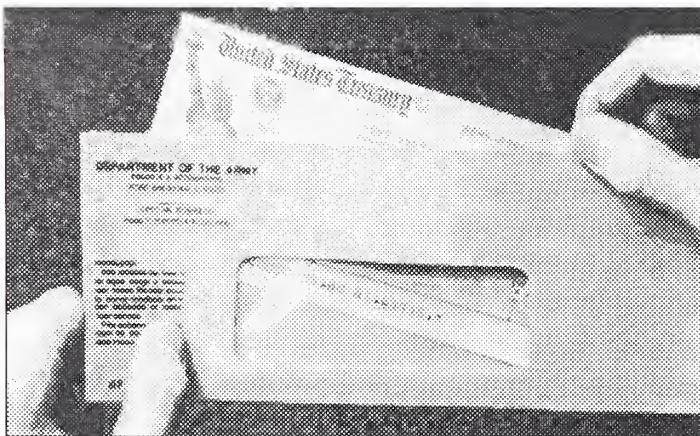
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# Breast Cancer and Mammography Screening In Tennessee

GARY ZELIZER, M.C.P.

Breast cancer is the most commonly diagnosed cancer and the nation's second leading cause of cancer deaths among women. According to the American Cancer Society (ACS), one of every nine women will at some time develop the disease. In 1991, ACS estimates that about 3,600 women were diagnosed with breast cancer in the state and approximately 900 women died from the disease.

Tennessee's age-adjusted mortality rate rose much faster than the national rate during the years 1979 to 1988 (Fig. 1). The state's 1979 mortality rate from breast cancer was less than 22 per 100,000 women, compared to a national rate of 26 per 100,000. By 1987, the two rates were virtually identical at 27.1 deaths per 100,000 women, but the state's rate had declined slightly below the national figure the following year. Both rates exceed the *Healthy People 2000* Health Status Objective, which is to reduce breast cancer deaths to no more than 20.6 per 100,000 women. (Note: In its publications, the National Cancer Institute age-adjusts cancer death rates to the 1970 U.S. population. Using the 1970 standard, the equivalent target value for this objective would be 25.2 per 100,000.)

The National Center for Health Statistics reported 1,522 breast cancer deaths in Tennessee during 1986 and 1987. The state's mortality rate for blacks during these years was markedly higher than the rate for whites—33.0 and 24.5, respectively. Tennessee's black mortality rate tied for the fifth highest in the nation.

The state's precipitous increase in the rate of breast cancer deaths during the 1980s may be due to a greater incidence of the disease, improved awareness by health professionals, or may be a reflection of a change in coding of data from death certificates. The Tennessee Cancer Registry, established in 1983, has just begun to provide valuable, multiyear information on the incidence of the disease.

A number of studies have shown that early detection through screening mammography and clinical breast examination can reduce breast cancer mortality among women 50 years of age and older. One noted study in

the early 1960s demonstrated a 30% reduction in breast cancer mortality among women screened by mammography and clinical breast examination.

Unfortunately, results from the Behavioral Risk Factor Surveillance System (BRFSS), a CDC-initiated telephone survey of adult behavior conducted by the Tennessee Department of Health, show that too few Tennessee women report ever having received a mammogram (Fig. 2). In 1987, 42.6% of female respondents reported ever having had a mammogram, compared to the median value of 48.7% for those surveyed in all 45 participating states and the District of Columbia. The state's percentage had jumped dramatically to 56.2% by 1989, but was still below the median value of 62.6%.

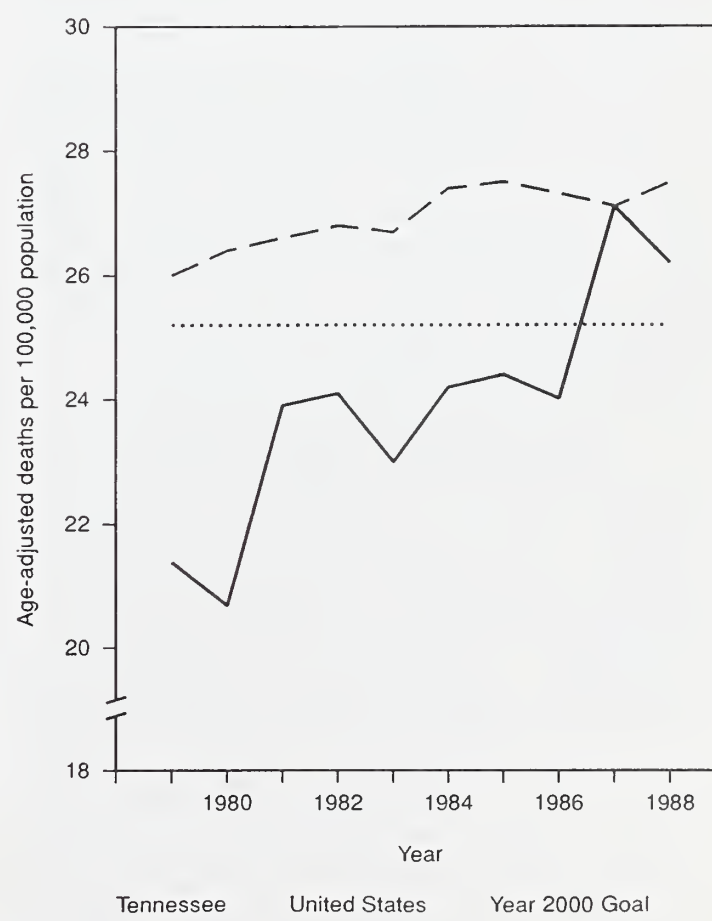
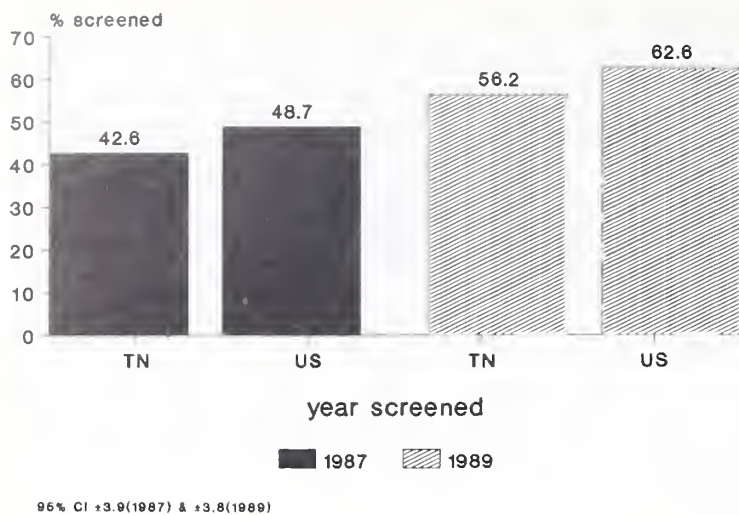


Figure 1. Breast cancer deaths, Tennessee and United States, 1979-1988.

From the Section on Health Prevention and Disease Control, Tennessee Department of Health, Nashville.



**Figure 2.** Percent of women greater than 39 years old reporting ever having had a mammogram—1987 and 1989 BRFSS for Tennessee and United States (45 states and DC).

This increase in self-reported mammography use may be attributed to greater media attention, increased physician acceptance and referral, improved accessibility, and expanded insurance coverage for screening mammograms as mandated by the Tennessee General Assembly in 1989.

In the *Morbidity and Mortality Weekly Report, CDC Surveillance Summaries* (Vol. 41/No. SS-2, April 24, 1992), the CDC reports that the 1989 BRFSS shows "more than one-half of all blacks and slightly more than one-third of all whites who reported never having had a mammogram (women ages  $\geq 40$  years) indicate that it was because their physician did not recommend it." Small proportions of women reported that they considered the procedure unnecessary and even fewer stated that cost or lack of knowledge of the procedure was the most important reason for never having a mammogram. The CDC suggests that low screening rates could be partially a result of physician noncompliance with recognized screening guidelines, or perhaps an inability to adequately educate women about the effectiveness of the procedure in the detection of breast cancer.

During the past four years, the Tennessee Department of Health has sponsored a mammography screening program for female state employees, and beginning in 1992, for spouses of male employees in Middle and East Tennessee. The Department has contracted with a number of accredited mobile mammography units based in Nashville, Knoxville, and Cookeville to make this service available to employees and spouses near their worksite and at a reasonable cost to the participant. ACS screening guidelines have been followed in determining participant eligibility. All screenings are interpreted by board-certified radiologists and the results provided to both the participant and her personal physician. Results of the program for the initial three years are shown in Table 1. Anecdotal responses of participants have been quite positive. The Department plans to continue making this valuable service available to the state's largest female workforce.

**TABLE 1**

**MOBILE MAMMOGRAPHY SCREENING  
FEMALE STATE EMPLOYEES, 1989-1991**

**Middle Tennessee**

Total Screened—1,279

Race—1,155 white (90.3%)

121 black (9.5%)

3 unknown

Abnormal Screenings—198 (15.5%)

Newly Diagnosed Cancers (all in-situ)—7

Rate=5.5/1,000 women screened

Of 1,076 women surveyed:

- 79% reported performing routine self-breast examinations
- 39% reported the screening to be their first mammogram
- 62% stated that they would not have had a mammogram if the mobile unit had not been available

**East Tennessee**

Total Screened—316

Abnormal Screenings—63 (19.9%)

Newly Diagnosed Cancer (in-situ)—1

Rate=3.2/1,000 women screened

Note: An insufficient number of women were surveyed to draw conclusions about behavior and participation.

Current breast cancer screening guidelines recommend that an asymptomatic woman should have an annual breast examination by her physician and a mammogram every one to two years. At age 50, both mammograms and physician examinations should be given annually. These guidelines may differ for a woman at high risk for breast cancer due to a personal or family history (mother, daughter, or sister with breast cancer). Physicians are in a unique position to be able to promote improved compliance with these standards. Increased mammography screening and clinical breast examination ultimately could result in a reduction in the mortality rate from breast cancer for women in Tennessee.

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# Aggressive Mismanagement

J. KELLEY AVERY, M.D.

### Case Report

A 60-year-old man with known hypertension gave a history of occasional bouts of "pressure" in the chest and shortness of breath associated with mild to moderate exertion for the past two years. These episodes had been worse the past two months. The pain that brought the patient into the hospital was described as mid-sternal, radiating to the shoulders, and associated with some breathlessness and diaphoresis.

In the emergency room, the patient was found to have a blood pressure of 160/90 mm Hg. The chest and heart were normal to auscultation. The EKG showed small Q waves in leads III and AVF with "atypical but nonspecific appearing ST segments." The echocardiogram was reported out as "normal," as was the chest x-ray. Routine laboratory values, including electrolytes and serum glucose, were normal. The patient was admitted as a "rule out myocardial infarction." Admission blood pressure was 150/88 mm Hg. The patient was symptom-free. Both a thallium scan and an exercise tolerance test were ordered.

On the day of admission, while waiting for the treadmill test, the patient complained of chest pain radiating to both arms. The physician was called; he ordered a STAT EKG and nitroglycerine (NTG) sublingually. Before the NTG was given, the blood pressure was 190/112 mm Hg. With almost immediate relief of chest pain the blood pressure was recorded at 170/110 mm Hg.

The physician ordered that the treadmill test be done, and his M.D. associate was to remain with the patient until the test was completed. The EKG showed the Q waves persisting in leads III and AVF, and the T waves inverted in U4-5. As the exercise test proceeded, at 6 MET an atrial bigeminy was observed. The treadmill test was interrupted, and the thallium scan was begun. Cardiac arrest occurred with documented ventricular fibrillation. Prompt and aggressive CPR was ineffective, and the patient died.

A lawsuit was filed, charging negligence in the failure to diagnose the infarction and in being out of an acceptable standard of care in ordering and proceeding with the treadmill test in the face of evidence strongly suggestive of acute myocardial infarction. No expert witness could be found to support the attending physician's conduct of this case. A six-figure settlement was negotiated.

Dr. Avery is chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Company, Brentwood, and associate director of Medical Affairs, St. Thomas Hospital, Nashville.

The Case of the Month is taken from actual Tennessee closed claims. An attempt is made to fictionalize the material in order to make it less easy to identify. If you recognize your own case, please be assured that it is presented solely for the purpose of emphasizing the issues presented.

### Loss Prevention Comments

Our attending physician in this case was an experienced specialist in a fine urban medical facility. Could it be that he had become so accustomed to success in the aggressive management of acute myocardial infarction that he had lost the edge of urgency and guarded expectation necessary to make appropriate decisions in the assessment and treatment of this kind of patient?

In retrospect, I am sure that the physician could not believe he had ignored the many signs of instability in this patient! Was he too tired to make a good decision? Was he distracted by a too busy schedule? Was he impaired by chemical dependency? What was it that prevented this physician from the cautious management of his patient, which could have had a positive outcome? Whatever it *really* was will not appear on the chart. It was not to be found in the area of competence, experience, or training.

It is not easy to remain alert and properly focused constantly. It is, in fact, humanly impossible to do so. How can we prevent this type of behavior in ourselves? When we get tired, rest! When we become overly preoccupied, back away—go to a movie, take a walk, or do whatever helps us to refocus with clarity on the patient and his problem. Sometimes it can be a matter of life or death.

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CHARLES ED ALLEN

### *The Gift of Healing*

Is there ever a December when we do not think of gifts? My memories of childhood excitement around the Christmas tree remain quite vivid. Jesus, whose birth we observe this month, said, "It is more blessed to give than to receive." I believe this is true, but as a child my preference ran strongly in the other direction.

With increasing age, and, I hope, wisdom, some of my most meaningful experiences have been the doing of some act for another that that person could not do alone. An old oriental custom requires that if a person saves another's life, then the lifesaver becomes responsible for the one saved. Although we do not follow that practice, it is true that a good deed may result in a strong bond between the parties. I am pleased and strengthened when patients or their relatives thank me, sometimes years later, for my medical services.

As physicians we daily have the experience of both giving and receiving gifts as we provide needed care for our patients and receive the satisfaction of knowing we have been of help. The pressures of medical practice sometimes distract us so that we do not give thought to the blessings of the day. So let us take a little time to appreciate what we are doing and to be thankful for our God given gift of healing. We just might find that every day is Christmas.

*Charles E. Allen, M.D.*

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DECEMBER, 1992

# editorials

## Handing the Bite that Bleeds You

Don't pin me down about the details of the episode I am about to recount, because I found the whole thing rather a bore—in fact, as our English friends might say in a fit of pique, a bloody bore—and I mention it only to condemn it, as the saying goes. I'll make it brief; for details, consult your local newspapers from mid- to late-September, which, not having much real news to report, gave it broad cov-

erage. At least in Nashville they did, Nashvillians being addicted to such things (as are a lot of Swiss, English, Canadians, and French, to name a few that I have recently found from firsthand experience to be equally addicted; Russians, too, I'm told, though I have no experience there).

It seems there is this country music singer, or perhaps I should say star, since that is the appellation usually accorded such as he, named Garth Brooks. Mr. Brooks is apparently the hottest thing going in his field these days. Mr. Brooks goes about putting on mammoth concerts at such gatherings as state fairs and so on. Mr. Brooks has a huge following. At the end of each concert Mr. Brooks allows himself to be photographed with *one*—this is important—one terminally ill child. The other thing that is important is that Mr. Brooks does not *have* to be photographed with *any* child, or anybody else, for that matter. He does not have even to speak to them or notice them at all. He does it because he *wants* to. That makes it an act of charity. Also important is that whether he does or does not will rather obviously not affect his standing with his fans, who apparently are legion, one iota.

Except for the Honorable Mr. Dan Burton, MC, of Indiana. Mr. Brooks had the temerity to fail to shake the hand of one of the Hon. Mr. Burton's deathly sick little constituents at the Indiana State Fair. The Hon. Mr. Burton considered it an act of charity on his part to arise and castigate Mr. Brooks on the floor of the U.S. House of Representatives for the dastardly lack of Christian charity Mr. Brooks showed the little tyke. Mr. Brooks has becomingly refrained from responding to the Hon. Mr. Burton's unbecoming outburst, but as might be expected, a whole host of his fans haven't. Among them is a long list of children's charity organizations, which have enumerated a long list of Mr. Brooks' charitable acts toward children.

Now I am not a particular fan of Mr. Brooks; in fact, before this happened his was just a name that I had occasionally seen, unassociated with a face or anything else. Mr. Brooks became a real person in my mental realm when he joined me and the medical profession generally, among, I'm certain, a lot of other presently faceless persons, as a victim of the warped mentality afflicting the inhabitants of the glistening domed building that lies in the midst of the great white rock pile on the Potomac.

Once upon a time, within my memory in medicine, but not in the memory of most of you, doctors took care of all comers alike. Doctors were then referred to not as health care providers or even physicians, but just *doctors*, because everybody knew



what doctors were. Patients who could pay did, and those who couldn't didn't, or at least didn't have to. The obligation to care for those who couldn't was a moral one, and maybe even an ethical one, but not a legal one. The obligation to pay the doctor was mostly a moral one, too, because few doctors turned their accounts over to collection agencies. No doctor *had* to treat anybody he didn't want to treat, and no patient had to go to any doctor he didn't want to go to. The doctor could charge whatever he liked, from nothing to a whole lot. His fees were regulated by his conscience, and if he got too far out of line, perhaps by his medical society. Then, enter the U.S. gummint.

Nowadays, those who can't pay are wards of the gummint, and not only can you as a federally designated and numbered *health care provider* not charge too much; you can't charge too little, either. If you do either one, you can be branded a criminal, and even do time, if it is flagrant enough. The least that can happen is that you can have your pittance docked. The doctor has fallen from a giver of charity to a receiver of reprimands, or worse, and he has sometimes even taken to acting like the money grubber the gummint has made him out as.

Charity is by definition a selfless act that is extended to those in need for whatever their need, without any conditions. Charity of that sort began on the first Christmas with the giving by God of Himself to everyone, unconditionally; Jesus epitomized it in His parable of the Good Samaritan. God was not and is not obligated to be selfless. Neither is Mr. Garth Brooks, nor are doctors or anyone else. Every one of those, or at least the vast majority, who attend Mr. Brooks' concerts, would give at least a pretty to but touch the hem of his garment, and be healed. The Hon. Mr. Dan Burton's little constituent longed for more. The Hon. Mr. Burton thought that, apparently just because she was *his* constituent, she was *due* more. I really wouldn't have thought to single out the Hon. Mr. Burton, of whom I was thankfully totally unaware, except that he had the poor judgment to verbalize an ill-considered notion he pulled out of the air that fills his head, a trait he shares with a majority of his colleagues. He patently never stopped to consider that when any such condition is imposed, the act becomes not charity, but taxation. Maybe the bureaucratic brain is just not equipped to understand that difference. About the only thing the Congress has proved itself adept at is, in my estimation, handing the bite that bleeds you.

Well, Merry Christmas, and, in the words of Tiny Tim, God bless us, every one. *Everyone*.

J.B.T.

## Requiem for an Island

No alien land in all the world has any deep strong charm for me but that one, no other land could so longingly and so beseechingly haunt me, sleeping and waking, through half a lifetime, as that one has done. Other things leave me, but it abides; other things change, but it remains the same. For me its balmy airs are always blowing, its summer seas flashing in the sun; the pulsing of its surfbeat is in my ear. I can see its plummy palms drowsing by the shore, its remote summits floating like islands above the cloud rack. I can feel the spirit of its woodland solitudes, I can hear the splash of its brooks: in my nostrils still lives the breath of flowers that perished twenty years ago.

—Mark Twain

Like me, Mark Twain had a continuing love affair with the Sandwich Islands, later the Hawaiian Islands, and now the state of Hawaii, about which he wrote, "I have visited, a great many years ago, the Sandwich Islands—that peaceful land, that beautiful land, that far-off land of profound repose . . . where life is one long slumberless Sabbath, the climate one long delicious summer day, and the good that die there experience no change, for they but fall asleep in one heaven and wake up in another." That is likely the only idol the old iconoclast never considered smashing. The words quoted at the head of this piece he wrote about Kauai, his favorite island of all. Some things are better in Hawaii now than they were then, and some not as good. On balance, though, everything is better than acceptable, in my not so humble opinion. Except in Kauai.

Sam Clemens never made what was then the long, hard trip back again. And a good thing, too. Not many years after his visit the lush rain forests throughout the islands had been replaced by sugar cane, and the Sandwich Islands he had known and loved had vanished. They had been "developed," even as he had predicted in a biting satire in 1873 they would be. Because the proud native Hawaiians did not make good field hands, Chinese were imported in large numbers as cheap labor. Then, when sometime after the turn of the century beets began to compete with cane as a source of sugar, the sugar industry in the islands entered the doldrums.

Along about that same time the islanders commenced longing for the lost beauty that had once graced their island home. Since much of the indigenous flora had been largely replaced, either accidentally or deliberately, by imported species, the Hawaiian Islands were recast with new populations of flora and fauna in the old mold, and long before they be-

came the 50th of the United States, had regained their tropical splendor. Kauai, the oldest, smallest, and wettest of the islands, became known as the Garden Isle. (As a byproduct, in company with some of its mainland sister states, including possibly our own, its largest cash crop has been illegally grown hemp, an Asian import that was once used legally for making rope but no longer is.)

That rejuvenated island was the Kauai I first visited and fell in love with 15 years ago. I have been back three times, have taken two helicopter tours around the island, and have always found waiting for the next visit nigh onto unbearable. Now, like Mark Twain's island, that tropical paradise that I knew and loved has vanished; it lies devastated, a once ravishing beauty now ravished and ravaged by the savage Hurricane Iniki. Because the full force of the gale, with sustained winds estimated at 150 miles an hour and gusts up to perhaps 200, struck the island dead center during the daylight hours, spectacular films of an island being reduced to rubble by wind and sea appeared on television screens across the country within only a few hours. The scenes of destruction from an aerial survey the next day were an instant replay, only on a smaller scale, of the nocturnal terror visited on South Florida two weeks earlier. Street by street and acre by acre there was no discernible difference; it's just that Kauai is only 30 miles wide, and has a population of only 8,000, whereas Hurricane Andrew took out an area and population many, many times that. In both cases, it was sickening to behold.

There is no way short of having been through such an ordeal that a mere observer can vicariously experience the anguish of seeing the winds, and even worse, the waves and storm surge, demolish in a few moments the accumulations of a lifetime. I would not wish to be thought insensitive to all that suffering, and it almost seems that such a mere observer should apologize for expressing any feelings of personal loss at all; indeed, such an expression might even be viewed as trivializing the desperation and anguish that showed so vividly in the faces of the dispossessed. At the same time, though, despite the absence of physical discomfort and loss, my own sense of bereavement, though understandably less keenly felt, is still real enough, and still beyond any adequate verbalization. Mark Twain would have understood.

On a visit to Kauai a little more than ten years ago I fell into a conversation with the pilot of the helicopter that would soon be taking me around the island. He had, he said, grown up in Youngstown, Ohio, gone to Ohio State University in Columbus,

and worked for seven years for General Motors in Detroit. Then he and his wife spent a week in Kauai on vacation, and were startled to find the sun not green or the moon purple. They returned to Detroit only long enough to collect their belongings. In the two years since they moved to Lihue, they had never left Kauai. Why should they, he said. The best vacation spot in the world was right there, and they would never get done exploring its wonders. I thought of him as I watched the wind and waves flatten Lihue and nearby Poipu, in the center of the storm's track, and of what he must have been feeling if he is still there. Two distorted skeletons of *Papillons Kauai* helicopters lay intertwined on the tarmac of the Lihue airport. Was one of them his? I wondered.

If there was any silver lining at all in that very blackest of clouds, it was that, thanks to modern communication and storm tracking, virtually no loss of life was attributable to either storm. Loss of everything else, though, is quite a different story. Yet even with the situation so desperate, over and over again came the lament that the island will never be the same. Given the magnitude of the destruction, that is a reasonable assumption for the lifetime of most of us who have known and loved the Kauai that vanished in the holocaust.

In time, as it always has, the earth will heal itself, and no one in another generation or so will ever be able to tell that there was once such a major disaster here, or remember what was lost in it. On the other hand, like Kauai, none of those involved in the disaster will ever be the same again, either, and many of them will never recover even a semblance of the life they once knew. But one way or another, life goes on.

"Don't he look natural?" is an oft-heard question around funeral parlors. I have never felt much of an urge to find out, preferring to remember the shell as it was with its natural inhabitant on board. If I'm still able to in five or ten years, I might go back, since I've found that nature is pretty good at hiding the scars by then. She might do it even faster in the tropical rain forests, but growing palm trees takes a spell. In the meantime, I've seen enough desolation on the news to last me.

Like the Phoenix, Kauai will rise again from its ashes; of that I'm certain. But it will not be the same Kauai. It will be a new and different Kauai—maybe just as beautiful, or maybe, heaven forbid, more developed, but in any case not the same. Our old Kauai is just as dead as Mark Twain's.

Kauai, R.I.P.

J.B.T.





*Thomas A. Maguda*, age 84. Died September 24, 1992. Graduate of Jefferson Medical College. Member of Memphis-Shelby County Medical Society.

*Clarence Simpson Thomas*, age 89. Died October 4, 1992. Graduate of Johns Hopkins University School of Medicine. Member of Nashville Academy of Medicine.

*Ethel Walker*, age 83. Died September 30, 1992. Graduate of Vanderbilt University School of Medicine. Member of Nashville Academy of Medicine.

## new members

The *Journal* takes this opportunity to welcome these new members to the Tennessee Medical Association.

### BRADLEY COUNTY MEDICAL SOCIETY

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### CARTER COUNTY MEDICAL SOCIETY

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*Gregory E. Rea, M.D.*, Elizabethton

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*Andrea Galloway*

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*Paige Renee Gernt*

## TMA Members Receive AMA Physician's Recognition Award

The following TMA members qualified for the AMA Physician's Recognition Award during September 1992. This list, supplied by the AMA, does not include members who reside in other states.

Physicians can receive the PRA certificate valid for one, two, or three years. For the one-year award, physicians report 50 hours of continuing medical education, including 20 hours of Category 1; for the two-year award, physicians report 100 hours of CME, including 40 hours of Category 1; for the three-year award, physicians report 150 hours of CME, 60 of which are Category 1. Beginning Jan. 1, 1993 each application for the PRA must also verify participation in Category 2 CME activities.

*Hobart H. Beale, M.D.*, Martin

*Daniel E. Conrad, M.D.*, Oak Ridge

*James F. Conrad, M.D.*, Nashville

*Blaise E. Ferraraccio, M.D.*, Clarksville

*Martin P. Gagliardi, M.D.*, Knoxville

*Edmon L. Green, M.D.*, Bristol

*Joseph M. Haskins, M.D.*, Chattanooga

*George E. Hazlehurst, M.D.*, Jackson

*Jerry K. Humphreys, M.D.*, Hermitage

*Kavin J. Johnson, M.D.*, Chattanooga

*David S. Jones, M.D.*, Nashville

*Miles J. Jones, M.D.*, Nashville

*H. Joseph Lantz, M.D.*, Chattanooga

*William I. Lewis, M.D.*, Nashville

*Karl E. Misulis, M.D.*, Jackson

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*Julie L. Owens, M.D.*, Nashville

*John A. Reaves, M.D.*, Dyersburg

*Kenneth E. Shoemaker, M.D.*, Cleveland

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*Larry H. Westerfield, M.D.*, Kingsport

*Michael R. Gouden*

*Christy Anne Grant*

*Jeffrey W. Green*

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*Paul Erich Hoffman*

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*Peter J. Kobes*

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*Mark E. Kuzucu*

*Michael Lacy*

*William Edward Lawson*

*Jonathan Lentz*

*Jacqueline A. Lewis*

*James P. Little*

*Todd Lucas*

*Iris Renee Mabry*

*John Scott Major*

*Amy G. Martin*

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*Vanessa McMackin*

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 Mimi Indrani Pal  
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 Loc B. Pham  
 Timothy D. Phillips  
 Bradley H. Reddick  
 Elizabeth E. Reimers  
 Thomas W. Rigsby  
 Arthur E. Roberson  
 Rodney Scott Rushing  
 Scott Michael Sadler  
 Chris D. Sanders  
 Angela D. Sellers  
 Merri Shaw  
 Nicholas E. Sieveking  
 C. Christopher Smith  
 Dennis R. Solomon  
 David Spigel  
 Richard Sprouse

Robert E. Stone III  
 Robert Lee Swords Jr.  
 Lucinda Templeton  
 Cory Ray Tinker  
 Jeffrey E. Tipps  
 Audrey Karen Tolbert  
 Lea Torbett  
 Paul Trombley  
 Judy Tsai  
 Tammie M. Tucker  
 Joseph V. Vandergriff  
 John W. Vinson  
 Beverly Suzanne White  
 Julie Anne Winkelmann  
 Kenneth W. Wood  
 Cynthia C. Woodall  
 Dexter Woods  
 William Henry Zachary

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Steven G. McLaughlin, M.D., Clarksville

#### NASHVILLE ACADEMY OF MEDICINE

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 James Alan Fry, M.D., Nashville  
 Benjamin Wilbur Johnson Jr., M.D., Nashville  
 Wesley Clark Ray, M.D., Antioch  
 Paul A. Seitz, M.D., Nashville  
 Jill Steier, M.D., Hendersonville  
 Jane M. Thomas, M.D., Nashville  
 David Scott Trochtenberg, M.D., Nashville

## personal news

Daniel E. Conrad, M.D., Oak Ridge, has been elected a Fellow of the American College of Physicians.

Hays Mitchell, M.D., Chattanooga, has been named Pediatrician of the Year by the Tennessee Chapter of the American Academy of Pediatrics.

## announcements

### CALENDAR OF MEETINGS

#### NATIONAL

- |            |   |
|------------|---|
| Feb. 7-10  | Southeastern Surgical Congress—Innisbrook, Tarpon Springs, Fla.               |
| Feb. 11-15 | Society of University Surgeons—Westin Hotel, Seattle                          |
| Feb. 12-14 | American Academy of Pain Medicine—Doubletree Hotel at Horton Plaza, San Diego |
| Feb. 12-15 | American Association for Geriatric Psychiatry—Intercontinental, New Orleans   |
| Feb. 18-23 | American Academy of Orthopaedic Surgeons—San Francisco                        |
| Feb. 23-27 | American College of Nuclear Physicians—Marriott, Orlando                      |

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# American Medical Association

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## For Your Benefit

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### AMA Pleased: HCFA Ends Penalty-Point System

Beginning in April 1993, HCFA will stop assigning "Quality Intervention Plan" points to physicians who are accused of quality care violations. In aiming to make the PRO program more educational, the agency deleted the penalty-point system from its revised

contract with the PROs. The American Medical Association is pleased; the association long contended that points contributed more to hassle factors than improved health care delivery. Most points were generally caused by chart errors.

---

### AMA Applauds Carrier Monitoring

Under HCFA requirements adopted by the HHS Advisory Committee on Medicare-Physician Relationships, each Medicare carrier must establish a Physician Advisory Committee. State and specialty medical societies have been contacted by local Medicare carriers to designate representatives.

The AMA strongly supports local advisory committees and urges full cooperation with them. These

committees are a means for physicians to be informed of and to participate in developing local medical review policy, pursuing needed improvements in Medicare administration, providing a forum for discussion between physicians and Medicare. The AMA will enhance its on-going carrier monitoring activities to provide additional support to the federation in dealing with local carrier issues.

---

### AMA Delays CPT Lab Coding Change

The AMA has secured HCFA's agreement to delay a major change in the *Current Procedural Terminology* codes for clinical laboratory services. Medicare carriers will implement

revisions to CPT's clinical laboratory section on April 1, 1993 rather than on January 1. During the interim, the services will be paid under the 1992 codes.

TMA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) as a sponsor of continuing medical education for physicians. Nonaccredited organizations may request TMA's joint sponsorship of CME activities. As an accredited sponsor, TMA is authorized to designate certain CME activities for credit in the AMA Physician's Recognition Award Program.

TMA is recognized by ACCME as the accreditor of institutions in Tennessee conducting intrastate CME programs. Any organization conducting such programs may apply to TMA for accreditation as a sponsor of CME.

Inquiries regarding TMA joint sponsorship of CME or application for accreditation as a sponsor of CME should be made in writing to: Director of Continuing Medical Education, Tennessee Medical Association, PO Box 120909, Nashville, TN 37212-0909.

## IMPORTANT NOTICE

Published in this section are many educational opportunities which come to our attention which might be of interest to our membership. As some of these are very long, full year schedules, and others are detailed descriptions of courses, in order to conserve space, most of them will be published in only one issue of the Journal.

## IN TENNESSEE

### VANDERBILT UNIVERSITY MEDICAL CENTER

#### Clinical Training Program

The doctor and faculty plan an individualized program to meet the physician's practice needs. This may include contact with patients, participation in clinical rounds and diagnostic procedures, interaction with faculty and housestaff, access to the Medical Center Library and other learning resources, and other benefits of a preceptorship. AMA/PRA Category 1 credit is provided for each hour of participation. Physicians *must* be licensed and be in active practice with evidence of liability coverage.

#### Ongoing Rounds and Conferences

Arrangements can be made for licensed practicing physicians to attend for credit.

#### Special Conferences/Seminars

Detailed brochures for the following courses are available. In some cases, registration numbers are limited.

Jan. 31-Feb. 5	Practical Aspects of Diagnostic Radiology/Medical Imaging VI—Snowmass Village, Colo.
Feb. 28-Mar. 5	Infectious Diseases—Snowmass Village, Colo.
March 1-2	Vanderbilt/Tennessee Annual Perinatal/Neonatal Meeting
March 5-6	Management of Chronic Airway Obstruction
April 2-3	Functional Endoscopic Sinus Surgery Workshop 1993
June 15-19	Contemporary Medical Imaging X—Destin, Fla.

July 12-16

Contemporary Clinical Neurology XVI—Hilton Head, S.C.

Aug. 6-7

Functional Endoscopic Sinus Surgery Workshop 1993

For information contact Division of CME, Vanderbilt University School of Medicine, D-8211 MCN, Nashville, TN 37232, Tel. (615) 322-4030.

### MEHARRY MEDICAL COLLEGE

#### Extended Continuing Education Program

Arrangements have been made with many services and departments in the medical school to allow practicing physicians to participate in the service's activities for a period of one day to one week. This program provides an opportunity for physicians to study in depth for a specified period. The schedule of activities is individualized in response to the physician's request by the participating department. The experience includes conferences, ward rounds, audiovisual materials and contact with patients, residents and faculty.

*Fee:* \$75 per day or \$275 per five-day week of educational experience including lunch and parking at Meharry Medical College. *Credit:* AMA Category 1 of the Physician's Recognition Award, AAFP, and Continuing Education Units from Meharry Medical College. *Application:* For information contact Henry A. Moses, Ph.D., Director of Continuing Education, Meharry Medical College, 1005 D.B. Todd Blvd., Nashville, TN 37208, Tel. (615) 327-6235.

### UNIVERSITY OF TENNESSEE

#### Continuing Education Schedule

##### Memphis

Jan. 14-17	Hypertension in Pregnancy
Jan. 15-16	Laparoscopic Hysterectomy: Hands-On Training Workshop
Feb. 8-11	Update in Obstetrics and Gynecology—Grand Cayman Island
Feb. 14-19	Clinical Medicine—Kauai, Hawaii
Feb. 19-20	Laparoscopic Hysterectomy: Hands-On Training Workshop
Feb. 20-21	Radiology Conference
Feb. 25-27	Seating the Disabled
March 6-13	Surgical Gynecology and Obstetrics—Steamboat Springs, Colo.
March 13-19	26th Annual Review Course for the Family Physician
March 25-27	Southern Society for Research in Psychiatry
April 1-3	Symposium on Critical Care & Emergency Medicine—Hot Springs, Ark.
May 6-7	Update 1993
May 6-7	General Surgery Update
July 31-Aug. 7	Contemporary Issues in Obstetrics and Gynecology—Destin, Fla.
Sept. 8-10	25th Memphis Conference on the Mother, Fetus, and Newborn



## Knoxville

- April 4-7 The National Sportsmedicine Conference '93—Orlando  
April 17-18 Dermatology Conference  
April 17 Ophthalmology Conference  
May 3-5 16th Annual Family Practice Update & Review—Gatlinburg  
May 21-23 14th Otolaryngology for the Primary Care Physician—Gatlinburg  
June 8-9 Pediatric Advanced Life Support Provider's Course—Gatlinburg  
June 10-12 38th Great Smoky Mountains Pediatric Seminar—Gatlinburg  
June 30-July 2 99th Upper Cumberland Medical Society Meeting—Fall Creek Falls, Pikeville  
Sept. 13-15 15th Annual Obstetric Office Ultrasound Workshop  
Nov. 11-12 10th Annual Alzheimer's Disease Symposium—Gatlinburg

For information contact Mrs. Jean Taylor Bryan, Office of CME, University of Tennessee, 800 Madison Ave., Memphis, TN 38163, Tel. (901) 528-5547.

## IN SURROUNDING STATES

### WASHINGTON UNIVERSITY—MISSOURI

- Feb. 27 Women and Men in Health Care  
March Malpractice  
March 27-29 Aesthetic Plastic Surgery: Facial and Body Contouring

For information contact Cathy Caruso, Office of CME, Washington University School of Medicine, Box 8063, St. Louis, MO 63110, Tel. (800) 325-9862.

## OF SPECIAL INTEREST

### MRI EDUCATION FOUNDATION, INC.

- Jan. 14-17 Intense MRI Neuro Weekend—Cincinnati  
May 6-9 Intense MRI Ortho Weekend—Cincinnati  
Sept. 19-24 Intense Total Body, Ortho. Neuro MRI Review—Cincinnati  
Oct. 28-31 Intense MRI Ortho Weekend—Cincinnati

For information contact Tom O'Connor, Director, MRI Education Foundation, Inc., 2600 Euclid Ave., Cincinnati, OH 45219, Tel. (800) 282-3404.

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**Indications:** Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

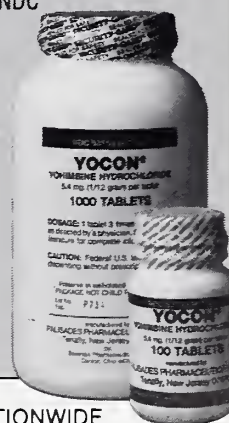
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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# 1992 MEMBERSHIP ROSTER

## TENNESSEE MEDICAL ASSOCIATION

An alphabetical listing of the members of the Tennessee Medical Association by component medical society is published as a service to the membership. An asterisk (\*) denotes physicians exempt from dues. A dash (—) denotes a student member.

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\*Cooper, Albert Lee, Shelbyville  
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Jayakody, Frank Lorenz, Shelbyville  
Johnson, Sue Paine Welch, Shelbyville  
Magnuson, Carol Lent, Shelbyville  
Melson, Danny Lee, Shelbyville  
\*Moulder, Grace E, Shelbyville  
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Rich, Earl Freeman, Shelbyville  
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\*Rogers, Benjamin Carl, Shelbyville  
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Stubblefield, Carl Thos, Shelbyville  
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Ali, Subhi Dawud Suboh, Waverly  
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Butterworth, Joe S, Camden  
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Dominguez, Noel R, Waverly  
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\*Horton, Robt Leslie, Camden  
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Ojeda, Nestor Armando, Waverly  
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Vitulla, Agustin V, Camden  
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Cline, Richard, Maryville  
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Cowan, John David, Maryville  
Crowder, Clay G, Maryville  
\*Dorr, David, Maryville  
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Elliott, William Earl, Maryville  
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\*Haralson Jr, Robt H, Maryville  
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Haun Jr, Louis Eugene, Maryville  
Heiny, Jerome James, Maryville  
\*Henry, James Spencer, Alcoa  
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Holder, James Thos, Maryville  
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Howard, Cecil B, Maryville  
Huffman, John Raymond, Maryville  
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\*Laughmiller, Roy W, Maryville  
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McAmis, John Carl, Maryville  
McCroskey, David L, Maryville

McCroskey, Marye Lois, Maryville  
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Thompson, Bryan Brooks, Maryville  
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Brewer, Randall J, Cleveland  
Bryan, John Milton, Cleveland  
Buchner Jr, William Francis, Cleveland  
Byers, Glen Marsh, Cleveland  
Byrd, Jack, Cleveland  
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Chastain, Allan Chalmer, Cleveland  
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Culpepper, Donnie, Cleveland  
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Held, Gordon R, Copperhill  
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Johnson, Daniel V, Cleveland  
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Murphy, John Allen, Cleveland  
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Snowman, Brenda, Cleveland  
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Craig, James P, Elizabethton  
Crowder, Brenda Jane, Elizabethton  
Freeman, John L, Elizabethton  
Gallaher, Richard Grant, Elizabethton  
Galloway, Richard Eugene, Elizabethton  
Gastineau, Jerry Lee, Elizabethton  
Hopland, Arnold O, Elizabethton  
Laing, Brent D, Elizabethton  
Martin Jr, Ricardo S, Elizabethton  
May, Floyd E, Elizabethton  
May, W Joyce, Elizabethton  
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Taylor, Tedford Steve, Elizabethton  
Walter, Robert E, Elizabethton  
Wells, Charles J, Elizabethton

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 \*Alper, Charles H, Chattanooga  
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 Anderson, Phillip, Chattanooga  
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 \*Boehm, Walter Edward, Chattanooga  
 Boehm, Walter Michael, Chattanooga  
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 Boiser, Aristides L, Chattanooga  
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 Bonder, Michael Ian, Chattanooga  
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 Bowers, Robt Eugene, Chattanooga  
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 Brown, Howard A, Chattanooga  
 Brown, Hugh P, Chattanooga  
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 Bryant, Max Vincent, Chattanooga  
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 Coddington, Robt Chas, Chattanooga  
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 Collins, David Newton, Chattanooga  
 Conn, Eric Hadley, Chattanooga  
 Cook, Thomas Andrew, Chattanooga  
 Corey Jr, James Hicks, Chattanooga  
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 \*Currey, Joe T, Chattanooga  
 Currey, Thomas Woodruff, Chattanooga  
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 Curtis, Thomas H, Ft Oglethorpe, GA  
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 Daniell, Malcolm Butler, Chattanooga  
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 \*Davis, James Wilson, Signal Mountain  
 Davis, Jimmy B, Chattanooga  
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 Dodson, David Bryan, Chattanooga  
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 \*Donaldson, Richard B, Chattanooga  
 Donaldson, Richard Wm, Chattanooga  
 Douglas, Michael, Chattanooga  
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 Dowlen, Steven H, Chattanooga  
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 Drake, Robert A, Chattanooga  
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 Durham, James H, Chattanooga  
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 Dwyer, William Knowles, Hixson  
 Dyer Jr, William Carl, Chattanooga  
 Eberle, David E, Chattanooga  
 Ellis, Eric R, Chattanooga  
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 Elrod, Bruce A, Ft Oglethorpe, GA  
 Enjeti, Suresh, Chattanooga  
 Epley, John M, Cookeville  
 Estep, Dennis Paul, Ft Oglethorpe, GA  
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 Evans, John Thos, Chattanooga  
 Eyssen, James Edward, Chattanooga  
 Fain III, Guy F, Chattanooga  
 Farber, Sharon Nancy, Chattanooga  
 Farr, John F, Chattanooga  
 Feinberg, Edward B, Chattanooga  
 Feintuch, Theodore Ard, Chattanooga  
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 Ferguson, Kevin R, Chattanooga  
 Fernandez-Cruz, Paz A, Chattanooga  
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 Fischer, Desmond L, Chattanooga  
 Fisher, Daniel Franklin, Chattanooga  
 \*Foley, James Mitchell, Chattanooga  
 \*Ford, Augustus C, Chattanooga  
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 Francis Jr, Henry M, Chattanooga  
 Frank, Stuart Ames, Chattanooga  
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 \*Frye Jr, Augustus H, Chattanooga  
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 Gazaleh, Shawn, Chattanooga  
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 Geffer, Jeffrey W, Chattanooga  
 Geffer, Monica Aviva Leher, Hixson  
 \*Gibson Jr, George Clive, Chattanooga  
 \*Giles Jr, Robt H, Signal Mountain  
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 Halfin, Aron, Hixson  
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 \*Havron, James Blackman, South Pittsburg  
 Hawkins, Charles W, Chattanooga  
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 Herrick, C Neil, Chattanooga  
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 \*Hofmeister, Richard G, Chattanooga  
 \*Holliday Jr, Pope B, Signal Mountain  
 Hong, Moon Wha, Chattanooga  
 \*Hooper, Charles McDowell, Chattanooga  
 Hopper, Richard E, Chattanooga  
 Horton, Marshall, Chattanooga  
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 Hua, Vin-Paul, Palmer  
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 Huffman, David M, Chattanooga  
 Huffstutter, Joseph E, Chattanooga  
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 Hunt, Noel Clarence, Chattanooga  
 \*Hutcherson, W Powell, Chattanooga  
 Iskander, Karim Naguib, Rossville, GA  
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 Jemison, David Marshall, Chattanooga  
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 Jensen, Robt Lloyd, Collegedale  
 Jeong, Yune-Gill, Chattanooga  
 Jezewski, Don Jule, Ft Oglethorpe, GA  
 Johnson, Brian D, Chattanooga  
 Johnson, Edward Downey, Sale Creek  
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 Jones, Gerald Isom, Chattanooga  
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 Jones, Roger C, Chattanooga  
 Jones, Russell A, Chattanooga  
 Jordan, Cassell Amanda, Chattanooga  
 Kadrie, Hytham Ali, Chattanooga  
 Kaplan, Bruce A, Chattanooga  
 Kaplan, Hyman M, Chattanooga  
 Kato, Yutaka, Chattanooga  
 Kelley, Joseph E, Chattanooga  
 \*Killeffer, John Jacob, Signal Mountain  
 Kim, Wayne Y, Chattanooga  
 Kimsey, Charles W, Chattanooga  
 King Jr, Walter Hughey, Chattanooga  
 Kirby, Charles A, Chattanooga  
 \*Kirk, Durwood L, Chattanooga  
 \*Kistler, Gene Haviland, Signal Mountain  
 Knight, Frank H, Chattanooga  
 Kocacitak, Sahin Sban, Ft Oglethorpe, GA  
 Kosanovich, Michael, Chattanooga  
 Krause, Richard Alan, Chattanooga  
 Kunda, Prabha A, Chattanooga  
 Kunda, Sarma R, Chattanooga  
 Kutzner, Waldemar, Collegedale  
 Labrador Jr, Daniel P, Chattanooga  
 Labrador, Irene J, Chattanooga  
 Lanham, Gary R, Chattanooga  
 Lansford Jr, Frederick D, Chattanooga  
 Lantz, H Joseph, Chattanooga  
 Laramore, John Wade, Chattanooga  
 Lasky, Richard Saml, Chattanooga  
 Lassiter, Lawrence H, Chattanooga  
 \*Lavecchia Jr, Jos V, Chattanooga  
 Lawrence Jr, Harry M, Chattanooga  
 Lawwill Jr, Stewart, Chattanooga  
 Lechler, Donald R, Chattanooga  
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 Lewis II, Jay Frederick, Chattanooga  
 Lewis, Allen David, Signal Mountain  
 Lilly, Mari Lynn, Chattanooga  
 Littell III, Lester F, Chattanooga  
 Little, James P, Signal Mountain  
 Liu, Chung-Yuen, Chattanooga  
 \*Livingston, Philip H, Chattanooga  
 Long, Ira Morris, Chattanooga  
 Love, Michael Allan, Chattanooga  
 Loyd, James Alan, Signal Mountain  
 Mabe, Robt E, Chattanooga  
 \*MacGuire Jr, William B, Chattanooga  
 Mackler, Donald F, Chattanooga  
 Majeed, Shahul J, Chattanooga  
 Maldonado, Luis Gonzalo, Signal Mountain  
 Mance, Cornelius J, Hixson  
 Mangan, Aloysius T, Chattanooga  
 Marcum, Robert F, Hixson  
 Marsh, Clarence Bruce, Chattanooga  
 \*Marsh, William Hollister, Chattanooga  
 Marshall, Robert N, Chattanooga  
 Mashchak, C Ann, Chattanooga  
 Massoud, Hossein, Chattanooga  
 Matthews, William Edwin, Chattanooga  
 \*McCall, Cooper H, Chattanooga  
 McCallie, David P, Chattanooga  
 McCallie, Jack B, Chattanooga  
 McCravey, John Wells, Chattanooga  
 McDonald Jr, Charles D, Chattanooga  
 McElheney, N Earl, Chattanooga  
 McGauley Jr, John R, Chattanooga  
 McGraw Jr, Ralph, Chattanooga  
 McGuire, Susan Kay, Chattanooga  
 McKinney, James E, Chattanooga  
 McKoy, Robert C, Chattanooga  
 McLean, George Wallace, Chattanooga  
 \*McMillan, James Gordon, Jasper



\*McNeill, Thomas Pinckney, Chattanooga  
Meadows III, William E, Chattanooga  
Megison, Donald P, Chattanooga  
Melvin, Terry, Chattanooga  
Mena, Michael C, Chattanooga  
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Meredith, Gary Eugene, Chattanooga  
Metcalfe, James K, Chattanooga  
Meyer, Carole M, Chattanooga  
Meyer, Melissa Lewis, Chattanooga  
Miller, Frank J, Chattanooga  
Miller, Phyllis A Edwards, Hixson  
\*Miller, Robt T, Chattanooga  
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Mills, Gary E, Hixson  
Minton, Joseph W, Chattanooga  
Mitchell Jr, Jerry Wayne, Chattanooga  
Mitchell, Allen M, Chattanooga  
Mock, R Bradley, Chattanooga  
Molloy, Ronald Lynn, Chattanooga  
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\*Moore, Hiram Beene, South Pittsburg  
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Moss, William Joel, Chattanooga  
Motto, Joseph A, Chattanooga  
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Murray, R Smith, Chattanooga  
Myers Sr, Robert W, Chattanooga  
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\*Nathan, Marvin Myer, Chattanooga  
Neall, David Lawrence, Chattanooga  
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\*Newell Jr, Edward Thos, Chattanooga  
Nipp, Ralph Elgin, Chattanooga  
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O'Connell, Fred H, Chattanooga  
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Oxenhandler, Ronald W, Signal Mountain  
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Parker, Christine W, Chattanooga  
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Patel, Vijay P, Chattanooga  
Patil, Vinit D, Chattanooga  
\*Patterson, Robt L, Chattanooga  
Paty Jr, John Garland, Chattanooga  
Payne, Doyce Gene, Chattanooga  
Payne, Stanley Ross, Chattanooga  
Pearce, Richard G, Chattanooga  
Perez, Martin Allen, Chattanooga  
Perkins, Thornton Delos, Chattanooga  
Perrin, Millard Foy, Chattanooga  
Peters, Richard A, Chattanooga  
Peterson Jr, Walter A, Chattanooga  
Peterson, Thomas R, Chattanooga  
Petty, Wesley Glenn, South Pittsburg  
Phlegar, Robert F, Chattanooga  
Pitts, David B, Chattanooga  
Poehlein, Richard E, Hixson  
Pollock, Phillip Gary, Chattanooga  
Pomerance, Glenn Noel, Chattanooga  
Portera, Charles Anthony, Chattanooga  
Potdar, Anilkumar S, Chattanooga  
Prater, Linda K, Chattanooga  
Puckett III, Walter, Chattanooga  
\*Quillian, Jesse O, Chattanooga  
Quillian, Joe Anne, Chattanooga  
Quinn, James Gilbert, Chattanooga  
Ramsay, George Craig, Gadsden, AL  
Ramsey, Millard Wray, Chattanooga  
Rawlings Jr, Maurice S, Chattanooga  
\*Rawlings Sr, Maurice S, Chattanooga  
\*Ray, Charles Jackson, Chattanooga  
Reddy, Sudhakar K, Chattanooga  
Redish, Martin, Chattanooga  
Reeves, Michael L, Chattanooga  
\*Reynolds, James Eugene, Signal Mountain  
Reynolds, John Robt, Chattanooga  
Reynolds, Thomas M, Chattanooga  
Rich, John Stephen, Chattanooga  
Richards, Theodore D, Chattanooga  
Richmond Jr, James P, Chattanooga  
Rimer, Thomas R, Chattanooga  
Rissling, Deloris E, Chattanooga  
Rittenberry Jr, Andrew B, Chattanooga  
Robinson, Neal Adams, Chattanooga  
Roe, S Michael, Chattanooga  
Rogers, Alfred Perkins, Chattanooga  
Rogers, Marilyn J, Chattanooga  
Rohrer, Jane L, Chattanooga  
Rose, Walter B, Chattanooga  
Rowe, William Edward, Chattanooga  
Royal, James Richard, Chattanooga  
Russell, Don Jere, Chattanooga  
Russell, William Lee, Chattanooga  
Santos, Benjamin G, Chattanooga  
Sargent, Larry A, Chattanooga  
Sarsfield, Jeffrey P, Chattanooga  
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Scanland, Jeanne A, Chattanooga  
Scheinberg, Marty, Chattanooga  
Schmits, G Michael, Chattanooga  
\*Schwartz, Harold Alan, Chattanooga

Scott Jr, Edgar Leonard, Chattanooga  
Scott, Wayne, Chattanooga  
Seal, Molly Elaine Roger, Chattanooga  
Seiters Jr, George Z, Chattanooga  
Seman, Charles Frederick, Chattanooga  
Sendele, Robert L, Chattanooga  
\*Sheldon, John P, Signal Mountain  
\*Shelton, Geo Washington, Chattanooga  
Shenouda, Adel Nemr, Chattanooga  
Sherrell, James Wm, Chattanooga  
Sherrill, Leroy, Chattanooga  
Shuck III, Edwin H, Chattanooga  
Shuck Jr, Edwin H, Chattanooga  
Shull, John A, Chattanooga  
Shuster, Larry D, Chattanooga  
Sienknecht, Charles Wilson, Chattanooga  
Sisko, Frank E, Signal Mountain  
\*Sivils, Geo Lete, Chattanooga  
Smiley, Francis J, Chattanooga  
Smith III, Archibald Y, Signal Mountain  
Smith III, Earl E, Chattanooga  
\*Smith Jr, Moore Jackson, Chattanooga  
Smith, Bill M, Chattanooga  
\*Smith, Stewart Phillip, Chattanooga  
Snyder Jr, Paul Edgar, Chattanooga  
Solomon, A Lee, Chattanooga  
Soteres, Pete Spiros, Signal Mountain  
\*Sottong, Philipp Curtis, Signal Mountain  
Spalding, Robt Tucker, Chattanooga  
Spitalny, Neil Howard, Chattanooga  
St Charles, Christopher S, Chattanooga  
\*Stafford, Florence E, Chattanooga  
Stanko, James A, Chattanooga  
\*Stappenbeck, Richard F, Chattanooga  
\*Starr, Harold Jones, Chattanooga  
Steele, Mark Alan, Chattanooga  
\*Stem, William Allison, Chattanooga  
Sternbergh Jr, W Chas A, Chattanooga  
Stickley, Jos Hardin, Chattanooga  
Stohler, Dennis L, Chattanooga  
Stone, Harry Alfred, Chattanooga  
Stone, Larry Dumas, Chattanooga  
\*Stoneburner, Wesley H, Lookout Mtn  
Strait, Timothy A, Chattanooga  
Strickland Jr, John E, Chattanooga  
Stroud, Mary E Thompson, Chattanooga  
Stubblefield, Steven B, Chattanooga  
Suggs III, Charles L, Chattanooga  
\*Suggs Jr, Charles L, Chattanooga  
Sumfest, Jill M, Chattanooga  
Sumida, Mark S, Chattanooga  
Susong, Charles Rodney, Hixson  
Swann Jr, Nat H, Signal Mountain  
\*Swift, Charles Ray, Chattanooga  
\*Szczukowski, Myron J, Chattanooga  
Talley, Mark A, Chattanooga  
Tantihachai, Sithipol, Dayton  
Taslimi, Mark, Chattanooga  
\*Taylor Jr, Viston, South Pittsburg  
\*Taylor, George N, Chattanooga  
Taylor, Robt Creston, Signal Mountain  
Tejani, Sushila N, Chattanooga  
Temlock, Arthur A, Chattanooga  
Templeton, Thomas S, Chattanooga  
Tepley, Lynn B, Chattanooga  
Tepper, Bernard, Chattanooga  
Thomas, Anita J, Chattanooga  
Thomas, Steven Michael, Chattanooga  
\*Thompson, Paul C, Chattanooga  
Thorner, Donald R, Chattanooga  
Thow, George Bruce, Chattanooga  
Tin, Pe Than, Chattanooga  
Tingley Jr, F Warren, Chattanooga  
Tiongson, Rodrigo Verzosa, Ft Oglethorpe, GA  
Trask, Shawn D, Ft Oglethorpe, GA  
Turner, David Herschel, Chattanooga  
Turner, Sharlinda B, Harrison  
\*Ulin, A Steven, Chattanooga  
Ulin, David M, Chattanooga  
\*Ulin, Louis, Chattanooga  
\*Vanorder, William Edgar, Chattanooga  
Vance, Minnie Ratliff, Chattanooga  
Vanderbilt, Douglas L, Chattanooga  
Vechinski, Thomas O, Chattanooga  
Vieth, Roger Gordon, Chattanooga  
Viscomi, Vincent A, Chattanooga  
Vivo, Jose A, McMinnville  
\*Vlasis, Gus John, Chattanooga  
VonWerssowetz, A J, Chattanooga  
\*Walton, Harry Lee, Lookout Mtn  
Waters Jr, Clyde C, Chattanooga  
Watkins, Steven L, Chattanooga  
Watlington, Joseph T, Chattanooga  
Weathers Jr, William, Chattanooga  
Weldon, Thomas Darrell, Ringgold, GA  
Wells, James D, Chattanooga  
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\*White, Phil Joe, Hixson  
White, William Otis, Chattanooga  
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Williams, Robert Henry, Chattanooga  
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Yates, Carl D, Chattanooga  
Yetter, Christopher R, Chattanooga  
Yium, Jackson Joe, Chattanooga  
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\*Young, Marion Marshall, Chattanooga  
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Conway, Thomas W, Newport  
Edwards, Dana Phillip, Newport  
Garbarino Jr, A J, Newport  
Gray Jr, McDonald, Newport  
Hood, Michael T, Newport  
Johnson II, H Kenneth, Newport  
Kickliter, David J, Newport  
McConnell, David H, Newport  
Valentine Jr, Fred M, Newport

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Bard, Shirley A, Tullahoma  
Birdwell, Joel Stanley, Tullahoma  
\*Canon, Robt Maurice, Tullahoma  
Cole, Richard Clinton, Tullahoma  
Craig, Allen R, Tullahoma  
\*Craig, Caren, Tullahoma  
Davis, Glenn Alan, Manchester  
\*Farrar, Clarence H, Manchester  
Fishbein, Richard E, Tullahoma  
Freeman, William J, Tullahoma  
Galbraith, Bruce E, Tullahoma  
George, Wilburn E, Tullahoma  
Harlow, Susan B, Estill Springs  
Harris, George A, Manchester  
Harvey, Charles Ben, Tullahoma  
Kennedy, Jerry Ledford, Tullahoma  
Kim, Ho Kyun, Tullahoma  
Krick, Joseph G, Tullahoma  
Lindsay, James, Tullahoma  
Lovejoy, Morris, Tullahoma  
Mahan, Ben Bob, Tullahoma  
Milam, William M, Tullahoma  
Norris, Hunter Willingham, Tullahoma  
Ridley, Robert Wendell, Tullahoma  
Robison, B Keith, Tullahoma  
Russell, Mark Roddy, Tullahoma  
Sanders IV, William J, Tullahoma  
Sethi, Brahm D, Manchester  
Sethi, Chander M, Manchester  
Seyler, Clifford Alan, Tullahoma  
Snoddy, Claude Collins, Tullahoma  
Vallejo, Francisco C, Tullahoma  
Vallejo, Luz A, Tullahoma  
\*Webb, Charles Harry, Tullahoma  
Yang, Harrison Y, Manchester  
\*Young, Coulter Smartt, Manchester  
Yu, Ja Nan, Manchester

## CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

Aguirre, Antonio, Jackson  
Alexander, Clyde Vinson, Jackson  
Anderson, Charles B, Jackson  
Appleton Jr, James Roy, Jackson  
Atkins, Jerry Franklin, Huntingdon  
\*Baker, Lt Cl John Q, Scottsdale, AZ  
\*Ballard, Thomas K, Jackson  
Barham, Harvey Haywood, Bolivar  
\*Barker, Edward C, Trenton  
Barnes Jr, James Walter, Jackson  
Barnett II, Hugh Glenn, Jackson  
\*Barnett, Robert J, Jackson  
Bhat, Narayana B, Huntingdon  
Bicknell, Sidney Lane, Jackson  
Bingham, Ron Craig, Jackson  
Bishop, John Myron, Somerville  
Bond Jr, Elias King, Jackson  
\*Booth, Jack H, Jackson  
Boyer, Jay A, Jackson  
Bratton, Chris H, Lexington  
Brown II, Joe Lawrence, Jackson  
Brown, Jane Warne, Jackson  
Brueggeman, Michael, Jackson  
Bryan, William David, Jackson  
Burleson, David G, Jackson  
\*Burnett, William Franklin, Jackson  
\*Burrus Jr, Swan, Jackson  
Carruth, Cynthia, Jackson  
Carruth, Larry, Jackson  
\*Chandler, John H, Jackson  
Chary, Kandala Ram, Jackson  
Clark, Curtis B, Jackson  
Cobb, R Michael, Jackson  
Couch, Billy Lanier, Humboldt  
Cox, Charles William, Jackson  
Craig Jr, James Thomas, Jackson  
Craig, Carol Shannon, Jackson  
Craig, Sterling Ruffin, Jackson  
Crenshaw, James Harris, Humboldt  
Crenshaw, Thomas Malcolm, Humboldt  
Crocker, Edward F, Jackson  
\*Crook, William Grant, Jackson  
Curlin, John Paschal, Jackson  
Currie, Dean Paul, Jackson  
Daugherty, Stephen Franklin, Jackson  
DeSouza, William Celestino, Rutherford  
Deming, Wood M, Jackson  
Diffie, James, Jackson  
Dinkins, Ruth Eleanor, Medina  
Donnell, James Harold, Jackson  
Douglass Jr, Roy A, Jackson  
\*Douglass, Jack E, Jackson  
Dowling, Clarey R, Brownsville  
Driver, Clarence, Jackson  
Dunavant, Robt Wayne, Bolivar  
Dunnebacke, Robert H, Jackson



Duval Jr, J William, Jackson  
 \*Edwards, Edwin Wiltz, Jackson  
 Edwards, George T, Jackson  
 Edwards, Nicholas Henry, Grand Junction  
 Ellis Jr, James Lee, Jackson  
 \*Ellis, John W, Trenton  
 Ellis, Thomas W, Jackson  
 Epps, John Michael, Jackson  
 Erb, Blair D, Jackson  
 Everett, John E, Jackson  
 \*Fields, James O, Milan  
 Fly, Randy, Jackson  
 Foster, Charles Stephen, Jackson  
 Francisco, Susan Marie, Jackson  
 \*Friedman, Fred M, Jackson  
 Frost, Charles Lester, Bolivar  
 Garrard Jr, Clifford L, Jackson  
 Gilroy Jr, Robert Johnson, Jackson  
 Goodwin, Stephen C, Milan  
 \*Graves, Oliver Haltom, Jackson  
 \*Gray, Alden Harrelson, Kenton  
 Grimbail, Arthur, Jackson  
 Guyton, Jos L, Jackson  
 \*Hall, James Wilson, Trenton  
 Hall, Robt Crombie, Jackson  
 Hammond, Jere D, Jackson  
 Hammond, Stephen, Jackson  
 Harmon, Harvey, Jackson  
 \*Harrison, Walton W, Jackson  
 Hawkins Jr, Raymond, Somerville  
 Hazlehurst Jr, George E, Jackson  
 Henderson, Reggie A, Lexington  
 Herron, Bruce Emerson, Jackson  
 Herron, Charles Burkhead, Jackson  
 Hertz Jr, Charles S, Jackson  
 \*Hicks, Alvin Thornton, Camden  
 Higgs, Bobby Clark, Jackson  
 Hill, Robt S, Jackson  
 Hockaday Jr, Edward Everette, Jackson  
 Holancin, John R, McKenzie  
 \*Holmes, Chester L, Ellison Bay, WI  
 Homra, Ronald, Jackson  
 Honeycutt, Daniel Lee, Jackson  
 Hornsby, Jerry, Jackson  
 House, Ben Fred, Jackson  
 \*Hubbard, Geo Baker, Jackson  
 \*Humphrey, Tom Neal, Selmer  
 Humphreys, T James, Jackson  
 Jenkins, John M, Jackson  
 Johnson, Jennifer, Jackson  
 \*Johnston, Leland Mann, Jackson  
 Jones, Kent L, Jackson  
 Jordan, Frank E, Jackson  
 Kee, Jimmy W, Jackson  
 Kendall, John Allen, Jackson  
 King, Darrel Chambers, Henderson  
 King, James D, Selmer  
 Kirkland, Ronald H, Jackson  
 \*Koonce, Duval Holtzclaw, Jackson  
 Koonce, Edward D, Jackson  
 LaFont, Donald Sharp, Jackson  
 \*Lane, James Davidson, Jackson  
 \*Langdon Jr, James A, Jackson  
 Larsen, David, Jackson  
 Lents, Russell S, Jackson  
 Lewis, Donald Ray, Jackson  
 Lewis, Marvin, Jackson  
 Linder, Tim, Lexington  
 Livermon Jr, Jefferson F, Jackson  
 \*Lowry, Maurice N, Lexington  
 Maley, Bruce B, Jackson  
 Mandle, Robt Bennie, Jackson  
 Matthews, John T, Jackson  
 Mayfield, Russell W, Bells  
 McAdoo, Michael A, Milan  
 McAfee, William Cleveland, Jackson  
 McCall, Charles, Jackson  
 McCallum, Oscar M, Henderson  
 McCauley, Jimmy Dale, Jackson  
 McCrudden, Brian E, Jackson  
 McIver, Harold Thomas, Jackson  
 McKnight, Donald, Jackson  
 McKnight, Frank S, Somerville  
 Meriwether, John Henning, Jackson  
 Middleton, Augustus L, Jackson  
 Miller Jr, Jesse A, Jackson  
 Misulis, Karl E, Jackson  
 Muir, Eric, Jackson  
 \*Myhr, Lamb Bolton, Jackson  
 Neblett, John W, Jackson  
 Oberg, Richard A, Jackson  
 Owens, Scott Emerson, Jackson  
 Pakis Jr, George, Jackson  
 Palmer Jr, Edmund T, Jackson  
 Patel, Hasamukh Dahyabhai, Trenton  
 Patel, Pravin, Bolivar  
 Payne, James Allen, Jackson  
 Pechacek, Alan, Jackson  
 Peeler, Harry Lee, Selmer  
 Pennington, Frank R, Jackson  
 Permenter, William D, Jackson  
 Peters, Jerry D, Jackson  
 Phillips, Tony N, Jackson  
 Price Jr, James Alfred, Jackson  
 Ramer Jr, Warren Carlton, Lexington  
 \*Ramer Sr, Warren C, Lexington  
 Reese, Eugene P, Jackson  
 Rhea Jr, Karl, Somerville  
 Rhea, Karl Byington, Somerville  
 Rhear, R Wayne, Jackson  
 Rheney, Molly McLemore, Jackson  
 \*Richards, Aubrey, Whiteville  
 \*Riddler, John Garth, Jackson  
 Robbins, Russell Hugh, Jackson  
 Roberts, William H, Jackson

Rogers, Lisa Marie, Jackson  
 Routon, William Robert, Humboldt  
 Rowland, Jos Perry, Jackson  
 Satterfield Jr, William T, Jackson  
 Schlamp, Allen Lee, Jackson  
 Schwartz, Paul E, Jackson  
 Scott, Augustus Barnett, Jackson  
 Sharpe Jr, Benjamin Weeks, Jackson  
 Shaw Jr, John L, Jackson  
 Sheppard Jr, Lee C, Jackson  
 Skau, Randell S, Milan  
 Smelser, Michael Harding, Adamsville  
 Smith Jr, Montie E, Selmer  
 Smith, Clyde E, Jackson  
 Smith, Harris L, Jackson  
 Smith, James Hagy, Selmer  
 Smith, Robt Jos, Jackson  
 Souder, Bob Tyler, Jackson  
 Spalding, Alanson R, Jackson  
 Spencer, Donald R, Brownsville  
 Spruill Jr, James Henry, Jackson  
 \*Stauffer, Chas C, Jackson  
 Stepp Jr, William P, Jackson  
 \*Stewart, David Earl, Brownsville  
 Stonecipher, Lowell F, Jackson  
 Story, William Charles, Jackson  
 Stripling, Jack Clements, Lexington  
 Swindle, James Tyler, Jackson  
 Taylor, Jackie L, Jackson  
 Taylor, Ronald F, Jackson  
 Thomas, George Emanuel, Jackson  
 Thomas, James Louis, Jackson  
 \*Thompson Jr, John Robt, Jackson  
 \*Thornton Jr, John C, Brownsville  
 Tillman, Ronald C, Alamo  
 Torstrick, Robert F, Jackson  
 Tozer, Kenneth, Milan  
 \*Truex, S Allen, Jackson  
 Tucker Jr, Robt Taylor, Jackson  
 Twilla, Ronald G, Milan  
 Twillie, Twyla M, Jackson  
 Underwood, David W, Jackson  
 Vegors, Robert A, Jackson  
 Verheek, Kenneth, Jackson  
 Vinson, Harold Wallace, Selmer  
 Wainscott, William Keith, Jackson  
 Warmbrod Jr, James G, Jackson  
 Webb, Jimmy Franklin, Jackson  
 Welles III, Edward Hunter, Jackson  
 Wheatley Jr, Kenneth, Jackson  
 White Jr, Charles, Jackson  
 White, Charles Wesley, Lexington  
 White, Jerald Wayne, Brownsville  
 White, Lamar Arthur, Friendship  
 \*Williams Jr, Allen N, Jackson  
 \*Williams, James Henry, Milan  
 Williams, James Larry, Trenton  
 Williams, Philip Gray, Milan  
 Williams, Richard Larry, Jackson  
 Williams, William Keith, Jackson  
 Williamson III, F E, Jackson  
 Wilson, Donald Allen, Jackson  
 Wilson, R L, Henderson  
 \*Wilson, Robt Burton, Huntingdon  
 Winkler, Volker Gert, McKenzie  
 Wolfe, Wayne Harvey, Jackson  
 Woods Jr, William H, Jackson  
 Woods, Arthur M, Jackson  
 Wright III, Lucius F, Jackson  
 \*Wyatt, Geo Breckenridge, Jackson  
 \*Wylie, Paul Eve, Jackson  
 Yarbro, George, Jackson  
 \*Yarbro, Harold R, Jackson  
 Yarbrough, Scott, Jackson

#### CUMBERLAND COUNTY MEDICAL SOCIETY

\*Barnawell, James Ross, Crossville  
 Baylosis, Roberto B, Crossville  
 Bell, Christopher M, Crossville  
 Bilbrey, Richard Lee, Crossville  
 Bise, Stanley L, Crossville  
 Braun, Richard C, Crossville  
 Callis, James Taylor, Crossville  
 \*Campbell Jr, James T, Crossville  
 Campbell, David Edward, Crossville  
 Clark, Jack Crowley, Crossville  
 Clayton, Thomas Edward, Crossville  
 Cravens, R Gene, Crossville  
 Crick, James M, Crossville  
 \*Deatherage, Philip M, Crossville  
 \*Dougherty, John H, Fairfield Glade  
 Duer, Carl Thos, Crossville  
 Durham, Beatrice L, Crossville  
 \*Ervin Jr, Paul A, Crossville  
 \*Evans, William Elkinton, Crossville  
 Fox, Mark Alan, Crossville  
 Guthrie, Fred A, Crossville  
 Hadidi, Faye Hussin Jahed, Crossville  
 Hall, Danny, Crossville  
 Ivey, Donathan Miles, Crossville  
 \*Ivey, R Donathan, Crossville  
 Kimbrell, Keith M, Crossville  
 Larson, Charles Adrian, Gunter, AL  
 Lee, Mark K, Crossville  
 Lindsay, Jack Wasson, Rockwood  
 Litchford, David Williams, Crossville  
 Mayfield, Robert D, Crossville  
 Monaghan, T Gavin, Crossville  
 \*Munson, Frederick Wm, Crossville  
 Nichols, Robert, Crossville  
 Olachea, Reinaldo A, Crossville  
 Patterson, Larry E, Crossville  
 Perrigan, Dale, Crossville  
 Reed, Larry Dewayne, Crossville

Robertson, Joseph D, Crossville  
 \*Seaton, Stuart P, Johnson City  
 Sentef, Mary, Crossville  
 Sherrill, John Branson, Crossville  
 Simpson, Jon A, Crossville  
 \*Wallace, Joe Kenneth, Crossville  
 Wood Jr, Robt Hancock, Crossville

#### DEKALB COUNTY MEDICAL SOCIETY

Blevins, Melvin L, Smithville  
 Cripps, Hugh Don, Smithville  
 Darrah, David Edward, Alexandria  
 Hooper, Doug G, Smithville  
 Rhody, Jack R, Smithville

#### DICKSON COUNTY MEDICAL SOCIETY

Anderson, Stanley Martin, Dickson  
 Bell Jr, Walter A, Dickson  
 Close, Louis Ward, Dickson  
 Collins, Clyde E, Dickson  
 \*Cook, Mary Baxter, Nashville  
 Drinnen, Danl Brooks, Dickson  
 Gordon, Jeffrey, Dickson  
 Gorzny, Jan M, Dickson  
 Hayes, Phillip Walton, Dickson  
 Hutchens, Zachary McVey, Centerville  
 Jackson Jr, Lawrence Richard, Centerville  
 \*Jackson, James T, Dickson  
 Jackson, James W, Dickson  
 Koomen, John C, Dickson  
 Luplow, Rolland, Dickson  
 Mahan, Marcelle, Dickson  
 Mani, Venk, Dickson  
 Mills, Van F, Dickson  
 Orgain, Robert W, Dickson  
 Pham Ngoc Thuan, Robert, Dickson  
 Plant, Richard Franklin, Dickson  
 Salyer, John R, Dickson  
 Savell, David, Dickson  
 Sexton, John Thomas, Centerville  
 Smith, Bobby Joel, Dickson  
 Thompson, Bill, Dickson  
 Wiser, Eldred Houck, Dickson

#### FENTRESS COUNTY MEDICAL SOCIETY

Allred, Baley Fred, Jamestown  
 Allred, Jonathan David, Jamestown  
 Carroll, Leonard, Jamestown  
 Hensel, Albert Earl, Murfreesboro  
 Joshi, Dilip N, Jamestown  
 Smith, Jack Calvin, Jamestown  
 \*Turner, Shelby Oscar, Clarkrange

#### FRANKLIN COUNTY MEDICAL SOCIETY

Bagby Jr, Richard A, Winchester  
 Blanc, Peter, Winchester  
 Boyanton, Lia Cecilia, Cowan  
 Boyanton, Walter J, Estill Springs  
 Fort Jr, Dudley Clark, St Andrews  
 Frye, Jeffrey L, Winchester  
 Greer, Patrick Roddy, Winchester  
 Hood, Dewey Woodrow, Decherd  
 Horton, Craig M, Winchester  
 Hubbard, Rex, Winchester  
 \*Johnson, Gerald Eugene, Winchester  
 Kennedy, Elaine, Winchester  
 Petrillia, Diane L, Sewanee  
 Petrochko, Nicholas, Winchester  
 Smith, Thomas Anderson, Winchester  
 Stensby, James G, Winchester  
 Stockton, David L, Tullahoma  
 Templeton, John Waggoner, Winchester  
 Williams, Jenny Lynn, Decherd  
 Worthington, Bryan, Winchester  
 Zimmerman, Thomas F, Winchester

#### GILES COUNTY MEDICAL SOCIETY

\*Agee, Robt B, Pulaski  
 Bell, Joseph Taylor, Pulaski  
 Burger, Charles W, Pulaski  
 Cox, Malcolm A, Pulaski  
 Davis Jr, Buford Preston, Pulaski  
 Fentress, J Vance, Ardmore  
 Foronda, Armando Cabot, Pulaski  
 Haney, Charles D, Pulaski  
 Murrey, William Harwell, Pulaski  
 \*Owen, William Kendrick, Pulaski  
 Owings, Jon M, Pulaski  
 Sakow, Henry A, Pulaski  
 Savage, Stephen Ross, Pulaski  
 Ziauddin, Mohamed, Pulaski

#### GREENE COUNTY MEDICAL SOCIETY

Aasheim, Richard J, Greeneville  
 Austin Jr, Joseph W, Greeneville  
 Austin, Maynard Wade, Greeneville  
 Barnes, Lloyd Rogers, Greeneville  
 Bean, Michael Wm, Greeneville  
 Beckner III, Thomas Folsom, Greeneville  
 Buckman, David D, Greeneville  
 Chapman Jr, Walter Clay, Greeneville  
 Cobble, Douglas Catron, Greeneville  
 Cole, Ronald Arthur, Greeneville  
 Diez D'Aux, Robert C, Greeneville  
 Easterly Jr, James F, Greeneville  
 Ellenburg Jr, Luke Lamar, Greeneville  
 \*Ellenburg, Luke L, Greeneville  
 Flohr, Robert Stephen, Greeneville  
 \*Gibson, Rae B, Greeneville



Giles, Stanley A, Greeneville  
Hartsell, Michael H, Greeneville  
Holt, Bevley D, Greeneville  
Hoppe, Gordon Paul, Greeneville  
\*Horner, Nathan P, Greeneville  
Keebler, Ben Jennings, Greeneville  
Marsa, Gordon L, Greeneville  
Mason, Walter Lawrence, Greeneville  
Mathews Jr, Kenneth M, Blountville  
Mathiesen Jr, K Marlin, Greeneville  
McKinney, James Ray, Greeneville  
McNiel, Frank H, Mosheim  
McNiel, Janet, Mosheim  
Metcalf III, Dee Lamar, Greeneville  
Montgomery, Charles Alexander, Greeneville  
Myers, Frederick J, Greeneville  
Nelson, Harry C, Greeneville  
Odell, Michael J, Greeneville  
Patterson, David Oscar, Greeneville  
Reardon, Peter, Greeneville  
\*Reviere, Calvin Barton, Greeneville  
Rodgers, James Steven, Greeneville  
Scott, William Joseph, Greeneville  
Shaw, John Louis, Greeneville  
Smead, William J, Greeneville  
Stanley III, Richard E, Greeneville  
Strange, E Brad, Greeneville  
Strimer, Robert M, Greeneville  
Sullivan Jr, Timothy J, Greeneville  
Susong, Kenneth Clark, Greeneville  
Turk, Ronald E, Greeneville  
Villeneuve, Victor, Greeneville  
Webster, Thomas Moore, Greeneville  
Yelton, James Criss, Greenville

### HARDIN COUNTY MEDICAL SOCIETY

\*Blankenship Jr, H, Savannah  
Churchwell, A Grigg, Savannah  
Greene, Richard S, Savannah  
Lard, Janet Kaye, Savannah  
Lay, John Danl, Savannah  
Rao, Gade, Savannah  
Roe, Thomas Vance, Savannah  
Smith, Michael L, Savannah  
Thomas, Howard W, Savannah  
Thomas, James Howard, Savannah

### HAWKINS COUNTY MEDICAL SOCIETY

Baird Jr, Renfro B, Rogersville  
\*Gibbons, William E, Rogersville  
Goyeau, Francis, Rogersville  
\*Huffman, Charles D, Rogersville  
Marcelo, Bernardino D, Rogersville  
Marcelo, Josefina Q, Rogersville

### HENRY COUNTY MEDICAL SOCIETY

Adams, Robert D, Paris  
Campbell, William Russell, Paris  
Duckworth, Hugh, Paris  
Garrett, Glenn Sanders, Paris  
Griffey Jr, Walter P, Paris  
Gronski, Henry W, Paris  
Harrison, Terry O, Paris  
McGee, James W, Paris  
\*McIntosh, Barry Park, Paris  
\*Mobley Jr, Emmett P, Paris  
Mobley Jr, Joe Dick, Paris  
\*Neumann Sr, John E, Paris  
Norman, Dwight Michael, Paris  
Rhea Jr, William Gardner, Paris  
Robertson, James Buford, Paris  
Sleadd, Frank Bland, Paris  
Swanson, Roger Thomas, Paris  
Tusa, Vince Chas, Paris  
Walker, Charles Allen, Paris  
Wood, Thomas Charles, Paris

### JACKSON COUNTY MEDICAL SOCIETY

Byrne, Gregory L, Gainesboro  
Dudney, Elijah Morgan, Gainesboro

### KNOXVILLE ACADEMY OF MEDICINE

Aaby, Gene Victor, Knoxville  
\*Acker Jr, Jos E, Knoxville  
Acker, James Jos, Knoxville  
Acker, John H, Knoxville  
Acuff, William Joseph, Knoxville  
Adams, Arthur F, Knoxville  
Adams, Linas J, Knoxville  
Adams, Terry Lee, Knoxville  
Aeberly, Richard, Knoxville  
Akin, Hobart E, Knoxville  
Alexander, J Sidney, Knoxville  
Allsop, Bruce N, Knoxville  
Ambrose, Paul Seabrook, Knoxville  
Ambrosia, John M, Knoxville  
Anderson, Mark D, Knoxville  
Anderson, Thomas I, Knoxville  
Andrews, Edmund B, Knoxville  
Ange, Charles Gilmer, Knoxville  
Ange, David Westley, Knoxville  
Annard, David W, Knoxville  
Antonucci, Richard A, Knoxville  
Arnold Jr, Henry Grady, Knoxville  
Arwood, Don C, Knoxville  
Austin, Stephen B, Knoxville  
\*Avera, John W, Oak Ridge  
\*Avery, Bebe Anne Bass, Knoxville  
Avery, Robert Bruce, Knoxville

Avery, Shirley Bannister, Knoxville  
Ayres, Mike, Knoxville  
Baddour Jr, George R, Knoxville  
Baddour, Larry M, Knoxville  
Bailey Jr, William Ross, Knoxville  
Bailey, W Kevin, Knoxville  
Baker Jr, Martin Ross, Knoxville  
Baker Jr, Paul D, Knoxville  
Baker, James W, Knoxville  
\*Bankston, Floyd N, Knoxville  
Barefoot, Thomas K, Knoxville  
Barnes III, Robert L, Knoxville  
Barnett, Charles F, Knoxville  
Barron, Freddie T, Knoxville  
Barton, Ronald Patterson, Powell  
Beahm, Walter Clarence, Knoxville  
Beals, Danl Franklin, Knoxville  
Beals, Joe Duncan, Knoxville  
Bedwell, William Howard, Knoxville  
Beeler, T Craig, Knoxville  
Bell III, W Reid, Knoxville  
Bell, John Henry, Knoxville  
Bell, John L, Knoxville  
\*Bell, Spencer Y, Knoxville  
Bellingrath, Len F, Knoxville  
Bellomy, Bruce B, Knoxville  
\*Benedict, Walter Hanford, Knoxville  
Benhayon, Jack, Knoxville  
Benton, James Carl, Knoxville  
Beuerlein, Frank J, Johnson City  
Bevelhimer, Ann S, Knoxville  
Biggs, Albert W, Knoxville  
Biggs, Monte Bruce, Knoxville  
Birdwell, David Allen, Knoxville  
Bishop Jr, Archer W, Knoxville  
Bishop, Harry Louis, Knoxville  
Black Jr, Joe Wm, Knoxville  
Black, William D, Knoxville  
\*Blair, Corrie, Loudon  
Blake Jr, John R, Knoxville  
Blake, Lynn French, Knoxville  
Blakeley, Russell R, Knoxville  
Blossom, Gerald Lee, Knoxville  
Bogartz, Leon Jacob, Knoxville  
Bost, William Eugene, Knoxville  
\*Boswell, Wade H, Knoxville  
Brabson, Leonard Allison, Knoxville  
\*Bradsher Jr, Jacob T, Knoxville  
Brakebill, Larry C, Knoxville  
Branson, Aubra David, Knoxville  
Bresee, Stuart J, Knoxville  
Brewer, Michelle L, Knoxville  
Brimi, Robert John, Knoxville  
Brinner, Richard A, Knoxville  
Britt, James Clyde, Knoxville  
Broady, Jos Leroy, Knoxville  
Brooks, R Christopher, Knoxville  
Broome, Monroe A, Knoxville  
Brott, Walter H, Knoxville  
Brown IV, Lytle, Knoxville  
Brown Jr, Frederick F, Knoxville  
Brown, Leonard W, Knoxville  
Bryan, Ronald Wm, Knoxville  
Bullock, Pamela Stephens, Knoxville  
Buonocore, Edward, Knoxville  
Burdette, James A, Lenoir City  
Burkhart, James M, Knoxville  
Burkhart, John H, Knoxville  
Burkhart, John McLain, Knoxville  
Burkhart, William L, Knoxville  
Burns Jr, E Brantley, Knoxville  
Burns Jr, James L, Knoxville  
Bushkell, Lawrence L, Knoxville  
Bushore, John Thos, Knoxville  
Byrd, William George, Knoxville  
Campbell Jr, John E, Knoxville  
Campbell, John Wilson, Knoxville  
Campbell, Morris Dean, Knoxville  
Campbell, Philip D, Knoxville  
Capps, Robert J, Knoxville  
\*Carlomagno, Oscar Mario, Knoxville  
Carlson Jr, C Sanford, Knoxville  
\*Carlson, C Sanford, Knoxville  
Carpenter, Kenneth B, Knoxville  
\*Carr, Frederick W, Knoxville  
Carter, Peter W, Knoxville  
Cates Jr, Harold E, Knoxville  
Cauble, Dan W, Knoxville  
\*Caylor, Lloyd G, Knoxville  
Chaudhuri, Udit, Knoxville  
Cherry, Ronald R, Knoxville  
Chesney, John Tucker, Knoxville  
\*Chesney, Luther W, Knoxville  
Chironna, Robert L, Knoxville  
Chobanian, Sarkis J, Knoxville  
\*Christenberry Jr, Henry E, Knoxville  
Christenberry Jr, K W, Knoxville  
\*Christian, Henry S, Knoxville  
Christiansen, Deborah J, Knoxville  
Cloud, William Wiley, Knoxville  
Cohn, Richard A, Knoxville  
Cole, Robt Reland, Knoxville  
Collier Jr, Robt Hoyal, Knoxville  
Collins, Mary Patricia, Knoxville  
Collmann, Irving Reid, Knoxville  
Comas, Frank Vilanova, Knoxville  
\*Congdon, Charles C, Oak Ridge  
Congleton III, Lee, Knoxville  
Conley, Dean Raymond, Knoxville  
\*Conner, Edward D, Knoxville  
Cooley, Caroline E, Knoxville  
Cooper Jr, John Harrison, Knoxville  
Cooper, John Franklin, Knoxville  
Copas, Pleas R, Knoxville  
Corey, David Anthony, Knoxville

Cotten, Daniel W, Knoxville  
Coughlin Jr, Dennis, Knoxville  
Cox, David Allan, Knoxville  
Crawley, Robert A, Knoxville  
Creutzinger, David J, Knoxville  
Crumley, Joe C, Knoxville  
Cummings, Barry F, Knoxville  
Cunningham, Leslie B, Knoxville  
Dabbs, Randal L, Knoxville  
Dalton, Morris Norton, Knoxville  
Davis, John V, Knoxville  
Davis, Lloyd Cleveland, Knoxville  
Davis, Stephen C, Knoxville  
Dawson, John T, Knoxville  
DeFiore Jr, Jos Chas, Knoxville  
DeLeese, Joseph S, Knoxville  
DeLozier, Joseph B, Knoxville  
DePersio, John E, Knoxville  
DePersio, Richard J, Knoxville  
Dean, Wesley R, Powell  
Degnan, Jonathan N, Knoxville  
Demers, Robert G, Knoxville  
\*Diddle, Albert W, Knoxville  
Dill, Stephen H, Knoxville  
Dilworth, Lee R, Knoxville  
\*Dobbins, William T, Loudon  
Dobbs, Tracy W, Knoxville  
Dodd, Susan Price, Knoxville  
Doiron, Clint T, Knoxville  
\*Dommm, Sheldon Edward, Knoxville  
Dooley, Patrick M, Knoxville  
Dorsey, Larry, Knoxville  
Dougherty Jr, John H, Knoxville  
Dougherty, Robt Edward, Knoxville  
Dover, Norris L, Knoxville  
Downs, James E, Knoxville  
Duffy, Mary Brock, Knoxville  
Duncan Jr, Raphael H, Knoxville  
\*Duncan, Orville Jack, Knoxville  
Dyer, Michael L, Knoxville  
\*Earnest Jr, Charles R, Knoxville  
Earnhardt, J William, Knoxville  
Ebenezer, Albert C S, Knoxville  
Eberle, Andrea J, Knoxville  
Eberts, Thomas, Knoxville  
Eisele, Sandra A, Knoxville  
Eisenstadt, Michael L, Knoxville  
Elder, Robert F, Knoxville  
Ellenburg, Donald T, Knoxville  
Elliott, Michael B, Knoxville  
Ellis, Roy C, Harrogate  
Ely, Daniel S, Knoxville  
\*Ely, James B, Knoxville  
Embry, Jerry J, Knoxville  
Enderson, Blaine L, Knoxville  
England, W David, Knoxville  
Erickson, Richard James, Knoxville  
Fardon, David Favreau, Knoxville  
Farris, Richard Kent, Knoxville  
\*Fecher, Mark P, Knoxville  
Feld, Neil, Knoxville  
Fetzer Jr, John Woodrow, Jefferson City  
Filchok, Joanne, Knoxville  
Fillmore, Geo Edward, Knoxville  
Finelli, Robert Edward, Knoxville  
\*Finer, George H, Sarasota, FL  
Fogle, Richard Allen, Knoxville  
Foster, Jerry M, Knoxville  
Foster, William Edwin, Knoxville  
Frame, Barry D, Knoxville  
Frame, Scott B, Knoxville  
Franklin, Stephen R, Knoxville  
Freeman, Coy, Knoxville  
Frere Jr, John M, Knoxville  
Fry Jr, Mellon Alma, Knoxville  
Furr, Fred M, Dandridge  
Gagliardi, Marty P, Knoxville  
Gammeltoft, Karsten, Knoxville  
Garber, Brian H, Knoxville  
\*Garcia Jr, Jos Isabel, Knoxville  
Gardner, William Henry, Knoxville  
Garrett Jr, Albert S, Oak Ridge  
Gaylord, Mark S, Knoxville  
\*Gee Jr, George Leonard, Knoxville  
Gentry, Robt Homer, Knoxville  
Gerkin, David George, Knoxville  
Ghorl, Abdul H Khan, Knoxville  
Gibson, Carl Eugene, Knoxville  
Gilbertson, Robert B, Knoxville  
Gillespie, Richard Allen, Knoxville  
Gitschlag, Gary N, Knoxville  
Gitschlag, Kamilia F, Knoxville  
Glatt, Herbert J, Knoxville  
Gleaves Jr, James E, Knoxville  
Glover, A Michael, Knoxville  
Godwin, Charles Wayne, Knoxville  
Goldman, Mitchell H, Knoxville  
Googe Jr, Joseph M, Knoxville  
Googe, Paul B, Knoxville  
Goudelock, D Stevenson, Louisville  
Gouffon, Charles Allen, Knoxville  
Gould, Howard R, Knoxville  
Graham, Randal O, Knoxville  
Gray, Frank Benton, Knoxville  
Green, Daniel M, Knoxville  
Green, Linda, Knoxville  
Greene, James Allen, Knoxville  
Greenwood, Jeffery D, Knoxville  
Griffith, Robt Carl, Knoxville  
Grimes, Alan Jackson, Knoxville  
Grossman, Allan M, Knoxville  
Gyurik, Catherine E, Knoxville  
Haase Jr, Theodore F, Knoxville  
Hahn, Jan T, Lenoir City  
Hall, Don J, Knoxville



Hall, Robt Edmund, Knoxville  
Hall, Stephanie, Knoxville  
Hall, William C, Knoxville  
Hampton, Bert Allan, Knoxville  
Hanna, Wahid T, Knoxville  
Haq, Jamshed U, Knoxville  
Haraf, Frank Jos, Knoxville  
Harb, Jos W, Knoxville  
Hargrove, R Leslie, Knoxville  
Harp, Daryl L, Knoxville  
Harrell, Thomas G, Knoxville  
Harris Jr, David J, Knoxville  
Harris, Christopher D, Knoxville  
Harris, Robt Wayne, Knoxville  
Harrison, John E B, Knoxville  
\*Harrison, William Blair, Loudon  
Hassell, David F, Knoxville  
Hatcher, Paul A, Knoxville  
Hauge, David H, Knoxville  
Hayworth, Ray Milton, Knoxville  
Hecht, Jeffrey S, Knoxville  
Heiser, Don Richard, Knoxville  
Hembree, Douglas Kirby, Knoxville  
Hemphill, James Louis, Knoxville  
Hendrick, Sophia J, Knoxville  
Henry, Bertram Rowe, Knoxville  
Henschen, Bruce L, Knoxville  
Hetrick, Thomas Henry, Knoxville  
Hicks Jr, Howard Kenneth, Knoxville  
\*Hicks, Howard Kenneth, Knoxville  
Higgins, Thomas G, Knoxville  
Hightower, Michael D, Knoxville  
Hill, Hubert Cawood, Knoxville  
Hitch Jr, James Parks, Knoxville  
Hoadley, Stephen D, Knoxville  
\*Hobart Jr, Richard Loren, Powell  
Hodge, Frederick Wm, Knoxville  
\*Hoey, David Francis, Knoxville  
Holmes, William S, Knoxville  
Holt, E Michael, Knoxville  
Hookman, Lawrence D, Knoxville  
Horton, W Don, Knoxville  
Hoskins, John C, Knoxville  
Hovis, William Marvin, Knoxville  
\*Howard Jr, G Turner, Knoxville  
Howe, John W, Knoxville  
Hubbard, Elizabeth W, Knoxville  
Hubner, Karl Franz, Knoxville  
Huddleston, Charles Irving, Knoxville  
Hudgens Jr, James F, Knoxville  
Hudson Jr, Arnold R, Knoxville  
\*Huggin, Perry M, Redlands, CA  
Hurst, Fred Alan, Knoxville  
Huskey, Larry Cecil, Knoxville  
Hutchins, Stephen F, Knoxville  
Hutson, Charles Combs, Knoxville  
Hyatt, Hugh Crockett, Knoxville  
Hyde, Gilbert L, Knoxville  
\*Idol, Enoch Colvin, Knoxville  
Ivens, Mark Young, Knoxville  
Jackson, Robert C, Knoxville  
Jeffries, Glenn Edward, Knoxville  
\*Jenkins, Astor L, Knoxville  
Jenkins, Basia Irene M, Knoxville  
Jennings, Jeffery G, Knoxville  
Jobson, Kenneth O, Knoxville  
Johnson Jr, J Breese, Knoxville  
Johnson Jr, William Reeves, Knoxville  
Johnson, Clifford, Knoxville  
Johnson, Jerry Richard, Knoxville  
Johnson Sr, Joe Breese, Knoxville  
Jones, Francis S, Knoxville  
Jones, Michael E, Knoxville  
Jost, Richard Raymond, Spring City  
Jourdan, Paul Leon, Knoxville  
\*Joyce, Margaret Eliz, Ocean Springs, MS  
Julius, Clark Eldon, Knoxville  
Kabbani, Sam A, Knoxville  
Kaserman, Fred B, Knoxville  
Keenan, Jeffrey A, Knoxville  
Kelly, Arthur Pat, Knoxville  
\*Kennedy, A Glenn, Knoxville  
\*Kennedy, John Olney, Knoxville  
Kennedy, Michael B, Knoxville  
Kerns, Ross E, Knoxville  
Kesterson, Gregg H D, Knoxville  
\*Kesterson, John E, Knoxville  
Khairollahi, Vali, Knoxville  
Killeffer, Fred Ayres, Knoxville  
Kim, Yoo Keun, Knoxville  
Kincaid, Geoffrey C, Knoxville  
King, Irvin Ray, Knoxville  
King, Jack Donald, Knoxville  
King, Jeffrey T, Knoxville  
Kiriluk, Randy M, Seymour  
Kirk Jr, Clifford C, Knoxville  
\*Klein Jr, Victor Hill, Knoxville  
Klein, Carl John, Knoxville  
Klein, Frederick A, Knoxville  
Kliefoth III, A Bernhard, Knoxville  
Knowling, Robt Edward, Knoxville  
Koefoot Jr, R Bruce, Knoxville  
Krauss, Stephen, Knoxville  
Krisle III, George Menees, Knoxville  
Kropilak, Michael D, Knoxville  
Kubota, Thomas T, Knoxville  
Lacey III, John W, Knoxville  
Laing, William Gavin, Knoxville  
Lassiter, Alan K, Knoxville  
Latham, Kent Emerson, Rockwood  
Law Jr, William M, Knoxville  
Law, John L, Farragut  
Law Sr, William M, Knoxville  
Lazarus, Stephen M, Knoxville  
LeBel, Serge, Knoxville  
LeTard, Francis X, Knoxville  
Leahy, Michael Douglas, Knoxville  
Leisy, Marilyn A, Knoxville  
Leonard, Joe H, Knoxville  
Lester, Thomas Edward, Knoxville  
Lethco, Gary W, Knoxville  
Lewis, Gloria L, Knoxville  
Lighter, Donald E, Knoxville  
\*Lincoln, Thomas A, Knoxville  
Lindsay, William C, Knoxville  
\*Line, Felix Glen, Knoxville  
Littlefield, Thomas R, Knoxville  
Logan, Daniel P, Knoxville  
London, Frank, Knoxville  
Long, Henry Heath, Knoxville  
Lorch, Vichien, Knoxville  
Lowry, Randolph M, Knoxville  
Lowry, Thomas Henry, Knoxville  
Lozzio, Carmen Bertucci, Knoxville  
Lualien, Jennifer J, Knoxville  
Luna, Joe Louis, Knoxville  
Luttrell, Arvell Stanley, Knoxville  
Lyon, Anthony G, Knoxville  
Lyons, Jack David, Knoxville  
Mack Jr, John W, Knoxville  
Maddox Jr, John R, Knoxville  
Madigan, Robt Regis, Knoxville  
Maggart, Michael L, Knoxville  
Maguire Jr, J Kimbro, Knoxville  
Malone Jr, Edward M, Knoxville  
Mancebo, Gerald L, Knoxville  
Mandojana, Ricardo M, Knoxville  
Manning, Richard O, Knoxville  
Marcy, John Saml, Knoxville  
Marshall, John Housden L, Knoxville  
Martin, Robert O, Knoxville  
Massingale, H Lynn, Knoxville  
Masters, Steven Bradley, Knoxville  
Mathews, Carl Leslie, Knoxville  
Mathien, Gregory Mark, Knoxville  
Maves, Barry V, Knoxville  
\*Maynard, Margaret Agnes, Atlanta, GA  
McCallen, Perry Boies, Knoxville  
\*McCammon, Curtis P, Knoxville  
\*McC Campbell, Bruce R, Knoxville  
McCauley Jr, Lowell L, Knoxville  
McCollum, Lionel D, Knoxville  
McCormack, Greg W, Knoxville  
McCoy III, William John, Knoxville  
McGhee, William Edward, Knoxville  
McGinn, Larry Dean, Knoxville  
McGinnis, Carroll William, Knoxville  
McGuire, William L, Knoxville  
McKenzie, Donald Keith, Knoxville  
McKenzie, Jerome F, Knoxville  
\*McKinney, Marion Berry, Knoxville  
McKissick, William R, Knoxville  
McMurry, John P, Knoxville  
McPeake III, William T, Knoxville  
\*McPeake, William T, Loudon  
Meadows, Robt Walter, Knoxville  
Meisenheimer, Stephen L, Knoxville  
Meyers, Anthony L, Knoxville  
Miale, Thomas D, Knoxville  
Miller Jr, Carter F, Knoxville  
Miller Jr, James H, Knoxville  
Miller, Christopher A, Knoxville  
Miller, Michael M, Knoxville  
Miller, Thomas R, Knoxville  
Miller, William Obed, Knoxville  
Millwood, Roger H, Maryville  
Minardo, Joseph D, Knoxville  
Minteer, William J, Knoxville  
Misra, Sarada N, Knoxville  
Mitchell, Donald Eugene, Lenoir City  
Mitchell, Michael E, Knoxville  
Mitchell, Phillip R, Knoxville  
\*Mitchell Sr, Foy B, Knoxville  
Mixon, William R, Knoxville  
Moble, Jack Murphy, Knoxville  
Moffett, Steven R, Knoxville  
Montgomery Jr, John Lee, Knoxville  
Montgomery, Jos Tucker, Knoxville  
Montgomery, Robert N, Knoxville  
Moon, Jos Benjamine, Knoxville  
Moore Jr, John David, Knoxville  
Moore Jr, Merrill Dennis, Knoxville  
Moore, Robert Saylor, Knoxville  
Mooreside, Douglas Edward, Knoxville  
Moreno, Francisco G, Knoxville  
Morgan, Tommy E, Knoxville  
Morgan, Travis Eugene, Knoxville  
Morris, Steven Allen, Knoxville  
Morton, Anthony W, Knoxville  
\*Moseley, James E, Knoxville  
Mounger, Emerson Jay, Knoxville  
Mueller, Robt Louis, Knoxville  
Mumford, Mark S, Knoxville  
Murray Jr, Edward Lee, Knoxville  
Muse Jr, William Scott, Knoxville  
\*Muse Sr, William S, Knoxville  
Mutter, Mitchell L, Knoxville  
Myers, James David, Knoxville  
Natelson, Stephen Ellis, Knoxville  
Naylor, Paul T, Knoxville  
Nelson Jr, Henry S, Knoxville  
Nelson Jr, John R, Knoxville  
\*Nelson Jr, William Alexander, Knoxville  
\*Nelson, Bill M, Knoxville  
Nelson, Mark L, Knoxville  
Newton, Kristy L, Knoxville  
Niethammer III, John G, Knoxville  
Norwood, Christopher W, Knoxville  
\*Noxon, Elvin B, Knoxville  
Noxon, Jean K, Knoxville  
O'Brien, Patrick, Knoxville  
O'Connor Jr, Charles M, Knoxville  
O'Kelley, Kenneth R, Knoxville  
Obenour, Richard A, Knoxville  
Ogden, Harry K, Knoxville  
Otis, Michael Vaughn, Knoxville  
Overholt, Bergein F, Knoxville  
Overholt, Robert Marion, Knoxville  
Owen, J David, Knoxville  
\*Ozdil, Turan, Knoxville  
Pack, Ronald Lynn, Knoxville  
Page, Casey Jay, Knoxville  
Paine Jr, Raymond Lee, Knoxville  
Palatinus, Jos, Oak Ridge  
Panella, Timothy J, Knoxville  
Pannocchia, Luis C, New Tazewell  
Pappas, Sam Geo, Knoxville  
Pardue, Randy T, Knoxville  
Park, Soung-Ho, Knoxville  
\*Parsons, Roy B, Kodak  
Passarello, Michael J, Knoxville  
Patil, Vijaya R, Knoxville  
\*Patterson Jr, Reese W, Knoxville  
\*Patterson Jr, Robt F, Knoxville  
Patterson, Frances K, Knoxville  
\*Patterson, William L, Knoxville  
Patteson, Stephen K, Knoxville  
Paulsen, William Allen, Knoxville  
\*Payne, Francis Homer, Knoxville  
Peagler, Charles C, Knoxville  
Pearce, Robert E, Knoxville  
Pedigo, Randall E, Knoxville  
Peebles, Fred Neal, Knoxville  
Peeden, Paula Z, Knoxville  
Peeler, Molly M, Knoxville  
Perry, Ronald Howard, Knoxville  
Petty, Albert M, Knoxville  
Pharaoh, James D, Knoxville  
Phelps Jr, Preston V, Knoxville  
Phelps, Richard W, Knoxville  
Phillips, Michael D, Knoxville  
Pickett, James C, Alcoa  
Pienkowski, Marek M, Bristol  
\*Pierce, Ira S, Knoxville  
Pierce, Truett H, Sneedville  
Place, James G, Knoxville  
Pool, Michael L, Knoxville  
Porter, F Raymond, Knoxville  
Powers, Laura B, Knoxville  
Powers, Timothy P, Charleston, SC  
Powers, William P, Knoxville  
Powers, Wilson L, Knoxville  
Powers, Wilson Watkins, Knoxville  
Presswood, James J, Knoxville  
Pride, H Hammond, Knoxville  
Prince Jr, Thomas Chafer, Knoxville  
Prince, Mark D, Knoxville  
Prinz, Stephen C, Knoxville  
Pritchard, G Mark, Knoxville  
\*Prose, James Clinton, Knoxville  
Purkey, Janet L, Knoxville  
Purvis, John T, Knoxville  
Quilty, Charles L, Louisville  
Rader, Gregg M, Knoxville  
Rader, Karen T, Knoxville  
\*Range, John A, Knoxville  
Rankin, David M, Knoxville  
Raulston Jr, Kenneth L, Knoxville  
\*Rawson, Freeman L, Knoxville  
Reath, David B, Knoxville  
Reed, Steven W, Knoxville  
Reed, Warren G, Knoxville  
Regeister Jr, Roland F, Knoxville  
Reid, William Stuart, Knoxville  
Reynolds, Charles W, Knoxville  
\*Richards, Paul D, Knoxville  
Rimer, Ronald Lee, Knoxville  
Rist, Toivo E, Knoxville  
Roberts, Jeffrey R, Knoxville  
Robinson, Richard Walter, Knoxville  
Rochester, John Crawford, Knoxville  
Rogers Jr, John C, Knoxville  
\*Rogers, Jerry Ray, Norfolk, VA  
\*Rogers, William Klar, Knoxville  
Rose III, Richard C, Knoxville  
Rosenbloom, Scott A, Knoxville  
Rowe, Buford E, Knoxville  
Rowe, Cecil Darrell, Knoxville  
Royer, John M, Knoxville  
Rudolph, Burton M, Atlanta, GA  
Rueff, David Anthony, Knoxville  
\*Rule III, William, Knoxville  
Rule, Jack Andrew, Knoxville  
Rule, Kenneth Andrew, Knoxville  
\*Rule, Kenneth Boyd, Knoxville  
Russell, Robt Claude, Knoxville  
Russell, Stephen A, Knoxville  
Ruth, Alex, Knoxville  
Rutherford Jr, Charles E, Knoxville  
\*Rutherford, Kyle Otis, Knoxville  
Rylands, John Craig, Knoxville  
Sain, Robt Lynn, Knoxville  
Sandberg, Ronald Kenneth, Knoxville  
Sanders, Jerry E, Knoxville  
Scariano Jr, Jack E, Knoxville  
Schaumburg, Edwin W, Knoxville  
Schneider, William James, Knoxville  
Schwarz, Susan M, Knoxville  
Scott, John Christopher, Knoxville  
Seals, James L, Knoxville  
Seals, Roy Lee, Knoxville  
Seaton, Douglas Y, Knoxville  
\*Segars, James Hugh, Knoxville  
Semmer, John R, Knoxville  
Serrell, Paul Burt, Knoxville



Sevilla, Evelyn A, Knoxville  
 \*Sexton Jr, Richard Carr, Knoxville  
 Sexton, David G, Knoxville  
 Sexton, David Herron, Oak Ridge  
 Shay, Robert J, Knoxville  
 Shea Jr, Walter C, Lenoir City  
 Shepard, Douglas L, Knoxville  
 Shepherd, T Preston, Knoxville  
 Shupp, David L, Knoxville  
 Siddiqui, Naseemul Haq, Knoxville  
 Siddiqui, Hafeezul H, Knoxville  
 \*Sienknecht, E Charles, Knoxville  
 Silver, H Steven, Knoxville  
 Simmons, John D, Knoxville  
 Simmons, Reynald T, Knoxville  
 Simons, Jon Ruric, Knoxville  
 Slutzker, A David, Knoxville  
 Slutzker, Daniel M, Knoxville  
 \*Smeltzer, Charles C, Knoxville  
 Smith Jr, George Walton, Knoxville  
 Smith, Bruce A, Knoxville  
 \*Smith, Eugene Baxter, Knoxville  
 Smith, Joe S, Knoxville  
 Smith, Louis A, Knoxville  
 Smith, Michael G, Knoxville  
 Smith, Richard S, Knoxville  
 Smith, Robt Lloyd, Knoxville  
 \*Smith, Vernon I, Louisville  
 Smith, William N, New Tazewell  
 Solomon, Alan, Knoxville  
 Soss, Sheldon Barry, Knoxville  
 Sowell, Jonathan W, Knoxville  
 Staley Jr, John R, Knoxville  
 Stallworth, William Park, Knoxville  
 Stanley Jr, Lowell D, Knoxville  
 \*Stevens, Thomas F, Knoxville  
 Stiles Jr, James H, Knoxville  
 \*Stockman, John Milton, Knoxville  
 Stockton, M David, Knoxville  
 Storm, Randle H, Knoxville  
 Sugantharaj, Christiana R, Knoxville  
 Sullivan Jr, Thomas Alan, Knoxville  
 Sullivan, William Ross, Knoxville  
 Sundahl, C Gerald, Knoxville  
 Sweet, Jo Gordon, Knoxville  
 Tarwater, Jean Cate, Knoxville  
 Tatum, Robert K, Knoxville  
 \*Tauxe, Edward L, Knoxville  
 Taylor, James Walter, Knoxville  
 Taylor, Kenneth M, Knoxville  
 Teague, Dale Alexander, Knoxville  
 Terry, William F, Knoxville  
 Thomas, Gary L, Knoxville  
 Thomas, T Darrell, Knoxville  
 \*Tipton, William Marshall, Knoxville  
 Tompkins, Forrest G, Knoxville  
 Toney III, Lee E, Knoxville  
 Toyohara, Hiroshi, Knoxville  
 Traylor, Thomas Reid, Knoxville  
 Treat, Elmer Lawrence, Knoxville  
 Trent, Billy Carl, Knoxville  
 \*Trent, Lucian Williams, Knoxville  
 Trivedi, Nayana M, Knoxville  
 Trofatter Jr, Kenneth F, Knoxville  
 Trudell, Randall G, Knoxville  
 Turner, Dean Montgomery, Knoxville  
 Turner, James Espy, Knoxville  
 \*Turney, M Frank, Knoxville  
 Tyler Jr, William Alexander, Knoxville  
 Underwood, Michael D, Knoxville  
 Urban, Donald A, Birmingham, AL  
 Uri, Margaret, Knoxville  
 Valentine, Robert G, Knoxville  
 Vandergriff, William Lowell, Knoxville  
 Vannoy, John F, Knoxville  
 Vick, George W, Knoxville  
 Vickers Jr, Marvin Haber, Knoxville  
 Vinsant, Christopher L, Knoxville  
 Wade Jr, Dwight Robt, Knoxville  
 Wakefield, Paul H, Knoxville  
 Walker, Bruce Edwin, Knoxville  
 Walker-Fillmore, Janice, Knoxville  
 Wall, James Wheland, Knoxville  
 Wallace, Sidney L, Knoxville  
 Waller, David H, Knoxville  
 Wallis, Donald Edwin, Knoxville  
 Walters, William J, Knoxville  
 \*Walton Jr, Clifford L, Knoxville  
 Walton, Norman C, Knoxville  
 Ware, Robt Edwin, Knoxville  
 Warrick, Jay H, Knoxville  
 Watson, David Theodore, Knoxville  
 Watts, Glenn Ferrell, Knoxville  
 Webber, Geo Robt, Knoxville  
 Weissfeld, Steven C, Knoxville  
 Wender, Chas M, Knoxville  
 \*Whanger, Herbert Noel, Knoxville  
 White, Robert F, Knoxville  
 Whitehurst, James H, Knoxville  
 Whittington, John Wm, Knoxville  
 Whittle, Robt Bruce, Knoxville  
 Wilhoite, Scott L, Knoxville  
 Williams Jr, Charles H, Knoxville  
 \*Williams, Muriel Lester, Knoxville  
 Williams, Richard E, Knoxville  
 Williford, William N, Knoxville  
 Willingham, Richard B, Knoxville  
 Wilson Jr, Stephen G, Knoxville  
 Wilson, David D, Knoxville  
 Wilson, Robin Terrell, Knoxville  
 \*Winebrenner, John Danl, Knoxville  
 Winn, Donna Marie, Knoxville  
 Wittke, Paul Edward, Knoxville  
 Wohlwend, Chas David, Knoxville  
 \*Wolaver, John Harrison, Knoxville

Wolfe, J Frederick, Knoxville  
 Wood, George H, Knoxville  
 Wooten, B David, Knoxville  
 Wooten, Paul T, Knoxville  
 Worden, James P, Knoxville  
 Worthington, W. Hall, Knoxville  
 Wright, Glenn E, Knoxville  
 Yates, James Douglas, Knoxville  
 Yatteau, Ronald Francis, Knoxville  
 Youmans, William Tinsley, Knoxville  
 Young, Thomas L, Knoxville  
 Young, Vernon Hutton, Knoxville  
 \*Young, Vincent T, Concord  
 \*Zachary, Eugene G, Knoxville  
 Zimmerman, Andrew W, Knoxville  
 Zirkle Jr, Geo Andrew, Knoxville  
 \*Zirkle, Chas Rankin, Knoxville  
 Zirkle, Peter Kevin, Knoxville

#### LAKEWAY MEDICAL SOCIETY

Alexander, William King, Morristown  
 \*Allen, Erman Dale, White Pine  
 Amador Jr, Jose Garcia, Morristown  
 Anderson, C Cole, Morristown  
 Andrews, Douglas Eugene, Morristown  
 Ballard, Peter Francis, Morristown  
 Barclay, Lee Roy, Morristown  
 \*Bellaire, Mack J, Tulsa, OK  
 Blake, Cleland Conway, Morristown  
 Booker, Burt L, Morristown  
 \*Brook, Howard Thos, Morristown  
 \*Bryan, Leander C, Rutledge  
 \*Bukeavich, Alfred Peter, Morristown  
 Bukovitz, Mary Elizabeth, Morristown  
 Carver, Michael C, Morristown  
 \*Cawood, David Clayton, Jefferson City  
 Chronis, Alex J, Knoxville  
 Chung, Sung Jang, Morristown  
 Clark, Peter, Morristown  
 Darby, Dewayne P, Jefferson City  
 \*Duby Jr, Clarence Jos, Morristown  
 Ellis Jr, John W, Jefferson City  
 Ellis, Frank S, Morristown  
 Fulk, Charles S, Morristown  
 Greene Jr, David Louis, Morristown  
 Gronewald, William Robert, Morristown  
 Gutch III, William John, Morristown  
 Helms, Crampton Harris, Morristown  
 Hill, Tenny Jacob, Rutledge  
 Horner III, John C, Morristown  
 Howard, Jessie Eugene, Jefferson City  
 Hunt, Robert M, Morristown  
 Jamison, R Alan, Morristown  
 Kim, Joo-Taek, Morristown  
 Kinser, John H, Morristown  
 Lindsey, Charles Hugh, Morristown  
 Little Jr, Frank B, Morristown  
 Lowry III, Orlanda Raymond, Morristown  
 Lynch, Everette G, Morristown  
 McKnight, Russell Delbert, Morristown  
 McLemore, Wayne L, Morristown  
 McNeil, David Wyatt, Morristown  
 Merritt, O L, Dandridge  
 \*Milligan, Frank Leslie, Jefferson City  
 Milligan, Leslie, Jefferson City  
 \*Muncy, Estle Pershing, Jefferson City  
 Patton, Lance S, Jefferson City  
 Payne, Steven D, Morristown  
 Perez, Ivan, Morristown  
 Potter III, William Walter, Morristown  
 Presutti, Henry J, Morristown  
 Reed, Paul Emory, Sneedville  
 Renner Jr, Omer Clyde, Morristown  
 Sams, Josiah B, Morristown  
 Scott, Charles Seale, Morristown  
 Tindall, J Raymond, Morristown  
 Trusler, Powell Maden, Morristown  
 Wee Eng, Jose L, Morristown  
 Willbanks, David Verner, Morristown  
 Yacono, John V, Morristown  
 Yates, Raymond Bernard, Morristown  
 Zirkle, John W, Jefferson City

#### LAWRENCE COUNTY MEDICAL SOCIETY

Berry, Frances A, Lawrenceburg  
 Campbell Jr, Earl Roy, Hopkinsville, KY  
 Coble, Robert V, Lawrenceburg  
 Credico, John Dominic, Lawrenceburg  
 Crowder Jr, Virgil Holt, Lawrenceburg  
 \*Crowder, Virgil H, Lawrenceburg  
 \*Davidson, Boyd P, Lawrenceburg  
 Dobias, Matthew Charles, Lawrenceburg  
 Everett, Leon E, Lawrenceburg  
 Garey, David L, Jackson  
 Henderson, Norman Leroy, Lawrenceburg  
 Hudgins, J Carmack, Lawrenceburg  
 Khatri, Hareesh H, Lawrenceburg  
 Mangubat, Jaime Virata, Waynesboro  
 Mauricio, Lilia D, Lawrenceburg  
 Methvin, Ray Elwin, Loretto  
 \*Parrish, Villard, Lawrenceburg  
 Qualls, Jerry Franklin, Lawrenceburg  
 Shah, Jayraj C, Lawrenceburg  
 Staley, Homer Lee, Lawrenceburg  
 Sutherland, W Shaen, Lawrenceburg  
 \*Taylor, Carson E, Lawrenceburg  
 Thomas, Henry Lewis, Lawrenceburg  
 Turman, Alfred, Lawrenceburg  
 Wilson, Clayton Don, Lawrenceburg

#### LINCOLN COUNTY MEDICAL SOCIETY

Barnes, Larry W, Fayetteville  
 Cobb, Rudy Theodore, Fayetteville  
 Gowda, H R Mallappa, Fayetteville  
 Holder, Terry Scott, Fayetteville  
 Jeffres, Earl M, Fayetteville  
 Jones, William R, Fayetteville  
 \*Marshall, Clyde B, Ardmore  
 McCauley, David R, Fayetteville  
 Morrison, Theresa, Fayetteville  
 Norman, Warren T, Fayetteville  
 Norskov, William Richard, Fayetteville  
 Patel, Yashwant P, Fayetteville  
 \*Patrick Jr, Thomas Alex, Fayetteville  
 Ralston Jr, Fred, Fayetteville  
 Spears, William Kyle, Fayetteville  
 \*Toone, C Doyno, Myrtle Beach, SC  
 Westover, Robert A, Fayetteville  
 \*Young Jr, Richard Wilson, Fayetteville  
 Young, William Mc Kinney, Fayetteville

#### MACON COUNTY MEDICAL SOCIETY

\*Chitwood Jr, Charles C, Lafayette  
 \*Deck Jr, Marvin Edward, Lafayette

#### MARSHALL COUNTY MEDICAL SOCIETY

Alfredson, David G, Belfast  
 Bone, George, Lewisburg  
 Harnisch, Kurt, Lewisburg  
 Hays, Danny, Lewisburg  
 \*Leonard, John Clarence, Lewisburg  
 Lewis, Melvin Glenn, Lewisburg  
 Nash, Timothy A, Lewisburg  
 Phelps Jr, Kenneth J, Lewisburg  
 \*Phelps Sr, Kenneth J, Lewisburg  
 \*Poarch, William Saxon, Lewisburg  
 Rutledge, Jones Planagan, Lewisburg  
 Surber, Jerry Lee, Lewisburg  
 Tepedino, Michael J, Lewisburg  
 VonAlmen, Jos Franklin, Lewisburg  
 \*Wolcott, Eugene S, Franklin

#### MAURY COUNTY MEDICAL SOCIETY

Adams, Jeffrey Thomas, Columbia  
 Andrews, Claudia S, Columbia  
 Ball, Charles A, Mount Pleasant  
 Barr, Ralph I, Columbia  
 Berry, Sidney A, Columbia  
 Brown, Jerry M, Columbia  
 Brown, John Preston Watt, Columbia  
 Choksi, Amit A, Columbia  
 Clifford Jr, Rufus R, Columbia  
 Cooper, Earnest H, Columbia  
 Dake, Thomas Scott, Columbia  
 Daniel, Eslick Ewing, Columbia  
 Daniels, David Allen, Columbia  
 Davidson, Randall L, Columbia  
 Davis, Karen Fisher, Mount Pleasant  
 Davis, Patricia Clifford, Columbia  
 Denney, Thomas Wade, Columbia  
 Duncan, Thomas Ray, Columbia  
 Ferrell, Harold Wiley, Columbia  
 Fiedler Jr, Geo Adolph, Columbia  
 Fitts Jr, James Morgan, Columbia  
 \*Gardner Jr, Carl C, Columbia  
 Gardner, Benny A, Columbia  
 Gordon, Timothy Edward, Columbia  
 Gray, Susan Thomas, Columbia  
 Hargrove, Joel T, Columbia  
 Harmon Jr, Roy F, Columbia  
 Harmuth III, Charles Robert, Columbia  
 Harris, Geylon Lee, Columbia  
 Hartman, Patrick Erwin, Columbia  
 Harwell, Walton Carden, Columbia  
 Heard, George J, Columbia  
 \*Helm, Harry C, Columbia  
 High, Ben Greer, Columbia  
 Hunter, Thomas A, Columbia  
 Jameson III, Chet Houston, Columbia  
 Jernigan, William N, Columbia  
 Kirkpatrick, Jeff C, Columbia  
 Kustoff, Ralph, Columbia  
 Kuykendall, Sam J, Columbia  
 \*Langa, Ambrose M, Columbia  
 Lay, Allyn Monroe, Columbia  
 Leach, James W, Columbia  
 Maloof III, John A, Columbia  
 Marshall, James H, Columbia  
 \*Mayfield Jr, Geo Radford, Columbia  
 McClure, Robert Wallace, Columbia  
 McKee, Mary S, Columbia  
 \*Miller, Clay R, Columbia  
 Monroe, Linda P, Columbia  
 Moore, Kenneth Lynn, Columbia  
 \*Nickell, Lawrence R, Columbia  
 Olson, John Richard, Columbia  
 Overton, Mary E, Columbia  
 Owens, Susan Jennings, Columbia  
 Parey, Stephen Edwin, Columbia  
 Podgorski, Gary Thomas, Columbia  
 Poling, Rodney A, Columbia  
 Pulliam, Cary Watson, Columbia  
 Rayburn Jr, M Taylor, Columbia  
 Richardson Jr, James W, Columbia  
 Robinson II, William Allison, Columbia  
 Rodriguez, Emilio J, Columbia  
 Simmons, Stephen P, Columbia  
 Sisk, Andrew Webb, Columbia  
 Smith, Anthony L, Columbia  
 Smith, Kenneth Dale, Culleoka  
 Stewart, William R, Columbia



Strickland, Raymond C, Columbia  
 Stults, Richard, Columbia  
 Thompson Jr, Robt Guerin, Columbia  
 Toban, M Moataz, Columbia  
 Vinson, Billy Joe, Columbia  
 Vinson, Janice Marie, Columbia  
 Vire, C Gordon, Columbia  
 \*Ward, Leon S, Columbia  
 Wendt, Charles Diller, Columbia  
 White, Thomas Ray, Columbia  
 Wiesman, H James, Columbia  
 Wilburn, Charles D, Columbia  
 \*Wilkes Jr, James Wallace, Columbia  
 Williams Jr, John O, Mount Pleasant  
 Worthman, John Frederick, Columbia  
 \*Young Jr, Thomas Kay, Columbia

#### McMINN COUNTY MEDICAL SOCIETY

Ackaouy, Geo E A, Athens  
 Bledsoe Jr, Robert E, Athens  
 Bolin, William R, Athens  
 Bowers, William Richard, Athens  
 \*Boyce, James Reid, Athens  
 Breedon, Kimberly T, Athens  
 Brumback, Daniel Christian, Athens  
 Burroughs II, Wallace F, Athens  
 \*Carroll, Charles Thomas, Athens  
 Cleveland, James Franklin, Englewood  
 Cox, Charles Bogges, Etowah  
 Davis, William Mayfield, Athens  
 Drury, William John, Athens  
 Foree Jr, William Edwin, Athens  
 Hargis, Larry Jackson, Athens  
 Hewgley Jr, Robert G, Athens  
 Hewgley, Robt Gardner, Athens  
 Holliday, H Joseph, Athens  
 \*Jones, Milnor, Athens  
 Lee, Yung Gil, Etowah  
 Lemings, Stephen, Loudon  
 Martin, Clyde, Athens  
 Maynard, Chris L, Athens  
 McKenzie, John Carl, Athens  
 Meyer, Charles Thomas, Etowah  
 Mitchell Jr, Foy B, Athens  
 Mokai, Albert Joseph, Loudon  
 \*Montgomery Sr, John L, Knoxville  
 Morris, William Gourrier, Athens  
 \*Powell, Jess A, Athens  
 Ramsey, Donald F, Knoxville  
 Schwiager, Paul, Athens  
 Sharpe, Charles Richard, Athens  
 Slowey III, James Fergus, Athens  
 Snider, Iris G, Athens  
 Soni, Harish Babulal, Etowah  
 Soni, Renuka Harish, Etowah  
 \*Trotter, Robt Wm, Athens  
 Wallace, Jeffery, Athens  
 \*Whittle Jr, Herbert P, Loudon  
 Williams, Thomas Wolford, Etowah

#### MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Abell, Thomas, Memphis  
 \*Ackerman, Robt F, Memphis  
 -Adams, David Lee, Hixson  
 Adams Jr, John Robert, Memphis  
 Adams Jr, William Milton, Memphis  
 \*Adams, John Q, Memphis  
 \*Adams, Lorenzo H, Memphis  
 Adams, Robert Franklin, Memphis  
 Adams, Robert L, Memphis  
 Adcock III, Frank John, Cordova  
 Addington, Milton Brent, Memphis  
 \*Adkins, Henry Leigh, Memphis  
 \*Adler, Justin H, Memphis  
 Adwell Jr, Charles Edward, Memphis  
 Aguiard, Susan Mack, Memphis  
 -Aikens, Chris H, Memphis  
 \*Aivazian, Garabed Hagop, Memphis  
 Akbik, Mohamad J, Memphis  
 Akers, Howard Thos, Memphis  
 Akins, Charles D, Memphis  
 Akins, Steven L, Memphis  
 Albritton, John Fortune, Memphis  
 Alexander Jr, Albert M, Memphis  
 Ali, Zenab Ahmed, Memphis  
 Alissandratos, Jane K, Memphis  
 Allbritton, James F, Memphis  
 -Allen, Gisele, Memphis  
 Allen Jr, Ray Maxwell, Memphis  
 \*Allen, Chester G, Memphis  
 Allen, Lee, Memphis  
 \*Alley, Franklin H, Somerville  
 -Alston, James Mark, Memphis  
 Alston, George P, Memphis  
 Amonette, Rex Allen, Memphis  
 Anderson, Joe Pat, Memphis  
 Anderson, Keith, Memphis  
 Andrews, C Radford, Memphis  
 -Anfinson, Scott Michael, Memphis  
 Angel, John Joseph, Memphis  
 \*Anishanslin, Donald N, Collierville  
 Apperson, John W, Memphis  
 Applegate, William Brown, Memphis  
 -Arehart, David, Memphis  
 Arkin, Charles Richard, Memphis  
 Armstrong, John Dale, Memphis  
 Arnold, Thomas W, Memphis  
 Arnold, Valerie Kaplan, Memphis  
 Aronoff, Philip Melvin, Memphis  
 Ash, Judy Jo G, Memphis  
 \*Aste, J Malcolm, Memphis

-Atchley, Neal William, Memphis  
 \*Atkins, Leland Langston, Memphis  
 Atkinson III, Edward, Memphis  
 Atkinson, Richard Agard, Memphis  
 Atwood, John Wesley, Memphis  
 Austin, John Lindsay, Memphis  
 -Avery, Melissa V, Memphis  
 Awdeh, Mahir Ramiz, Memphis  
 Aycock Jr, William Wallace, Memphis  
 Babin, Richard W, Bartlett  
 -Bailey, Michael, Memphis  
 Bailey, James Wesley, Memphis  
 \*Baird, John Wm, Memphis  
 Baker, Irvin C, Memphis  
 \*Baker, Jos E, Memphis  
 \*Baker, Malcolm A, Arlington  
 Bale, Geo Franklin, Memphis  
 Ballenger, Reid Peter L, Memphis  
 Bang, Hoi Jine, Germantown  
 \*Barber, Roy M, Memphis  
 -Barger, Amy, Memphis  
 -Barnard, Edgar Benton, Memphis  
 -Barnes, Edward Kirk, Memphis  
 Barnes, Grover W, Memphis  
 Baron, Michael John, Memphis  
 -Baronowski, Robert Paul, Memphis  
 \*Barr, James R, Memphis  
 -Barrett, Kimberly Gaye, Memphis  
 Barrett II, Milton R, Memphis  
 -Barrick, Kecia Michelle, Memphis  
 -Basarrate, Anne Marie, Memphis  
 Baskin, Reed Carl, Memphis  
 Bates, Richard Greene, Memphis  
 -Baymiller, Scott P, Memphis  
 Beale, Howard Leo, Memphis  
 -Bearden, Carrie Patton, Memphis  
 -Beasley, Kris Ann, Memphis  
 Beatus Jr, Benjamin Louis, Memphis  
 Beaty Jr, James Harold, Memphis  
 Beaver, Terinell, Memphis  
 -Becker, Paul Lawrence, Memphis  
 -Becker, Stephanie, Memphis  
 Beckford, Neal Stanley, Memphis  
 -Beightol, Karin A, Memphis  
 Bell, Steven Hunter, Memphis  
 Bellott Jr, Arthur L, Memphis  
 Bellur, Srinath N, Memphis  
 Benitone, Jerry Donald, Memphis  
 -Bennett, Jason M, Memphis  
 -Bennie, Jonathon E, Memphis  
 -Bentley, Amy Elizabeth, Memphis  
 -Benton, Mary Elizabeth, Memphis  
 Bernet, William, Nashville  
 -Berry, Timothy Bryan, Englewood  
 Berry III, Allen D, Memphis  
 Bertorini, Tulio E, Memphis  
 -Beuerlein, John Thomas, Memphis  
 -Bicknell, Bennett W, Memphis  
 Bicks, Richard O, Memphis  
 Bielskis Jr, William M, Memphis  
 Biggs, Jack, Southaven, MS  
 \*Biles Jr, James D, Memphis  
 -Bingham, Van, Memphis  
 Birdsong Jr, Emmitt S, Memphis  
 Bishop, Calvin R, Memphis  
 Blackwell, Carolyn Fiser, Memphis  
 Blair, John Rodney, Memphis  
 -Blake, Robert A L, Memphis  
 \*Bland Jr, Basil A, Memphis  
 \*Bland, Geo B, Memphis  
 \*Bleecker, Philip B, Memphis  
 Blumen, Herbert, Memphis  
 -Blumenfeld, Frances Gwen, Memphis  
 Blumenfeld, Harry Bernard, Memphis  
 Blythe III, Jos Alfred, Memphis  
 Boals III, Jos Calloway, Memphis  
 -Boals Jr, James William, Memphis  
 Boals, James Wm, Germantown  
 -Boatman, Brian Glen, Memphis  
 Bobo, Robt Thompson, Memphis  
 Boehm, Robert M, Memphis  
 -Bookout, John Scott, Memphis  
 Boom, Alan Dexter, Memphis  
 \*Boone, Howard A, Memphis  
 Boone, James E, Memphis  
 Boone, Thipavan, Memphis  
 -Boruff, Jeffrey Scott, Memphis  
 Boston, Barry, Memphis  
 Boswell, Richard Lee, Memphis  
 Boulden, Thomas F, Memphis  
 \*Bouldin, Mary E, Clarksdale, MS  
 Bourland Jr, Robt Leon, Memphis  
 Bourland, William Landess, Memphis  
 \*Bowerman, Earl P, Memphis  
 Bowron Jr, James Shelby, Memphis  
 Boyd Jr, Allen Street, Memphis  
 \*Brady, Boyer M, Memphis  
 Brady, Michael Batson, Memphis  
 Brantley, J Hays, Memphis  
 -Brazzel, Richard A, Memphis  
 -Breazeale, Richard, Memphis  
 Bridges, Arnold D, Memphis  
 \*Bridges, James T, Memphis  
 Britt, Louis Goodno, Memphis  
 -Broady, Roy Cox, Memphis  
 Bronstein, Maury W, Memphis  
 Bronstein, Michael S, Memphis  
 Brooks, Brown, Memphis  
 Brooks, Maria Teresa, Lakeland  
 -Brown, Chandra, Memphis  
 -Brown, Shannon C, Memphis  
 -Brown, William Raymond, Memphis  
 Brown, Charles H, Memphis  
 \*Brown, James S, Memphis  
 Brunt, Charles Hal, Memphis

Bryant, James W, Memphis  
 Buchalter, Robt, Memphis  
 -Buchanan, Mark Gary, Memphis  
 Buchignani, John Shea, Memphis  
 Buchignani, Joseph Anthony, Memphis  
 Buckley Jr, Madison H, Memphis  
 Bucy, William Wesson, Germantown  
 -Bueno, Frances, Memphis  
 Burch, James Reginald, Memphis  
 -Burk, Thomas Andrew, Memphis  
 Burke, Larry D, Memphis  
 Burkle III, Geo Henry, Germantown  
 -Burnett, Jill, Memphis  
 Burnett, Charles Roland, Memphis  
 -Burrough, Donya Katharina, Memphis  
 Buruss, George Lewis, Memphis  
 -Burton, Pamela Marcena, Memphis  
 Burton, William Duer, Memphis  
 Busby, Micky L, Memphis  
 -Butler, Jonathan William, Memphis  
 Butler, Dorothy Ann Hicks, Memphis  
 Butler, Richard Mason, Memphis  
 Buttross, John Boustany, Memphis  
 \*Buxton, Bertram H, Marco Island, FL  
 -Cain, Stephanie Smith, Memphis  
 \*Calandrucchio, Rocco A, Memphis  
 Caldwell, Edward Prichard, Memphis  
 -Calfee, Michael David, Memphis  
 -Callicott, Randy W, Cordova  
 \*Callison, Maston K, Memphis  
 -Canale, Mary Elizabeth, Memphis  
 Canale, Dee James, Memphis  
 Canale, Sturla Terrance, Memphis  
 Cancio, Consolacion V, Memphis  
 \*Cannon, Bland Wilson, Memphis  
 Cape, Charles Albert, Memphis  
 \*Caradine Jr, Robt Sidney, Memphis  
 -Carden, Kelly A, Memphis  
 -Cardosi, Richard Joseph, Memphis  
 Carnesale, Peter Guydon, Memphis  
 -Carpenter, Sharon Denise, Memphis  
 -Carrera, John B, Memphis  
 Carro, Manuel F, Memphis  
 \*Carroll, David S, Memphis  
 -Carruth, Paul C, Cordova  
 \*Carruthers Jr, Danl F, Memphis  
 Carson, Ricky Reynolds, Memphis  
 Carter, Lee M, Memphis  
 Carter, Belvia, Memphis  
 Carter, Charles L, Memphis  
 \*Carter, Harvey Wallace, Memphis  
 Carter, James Roland, Memphis  
 Cashion, Ernest L, Germantown  
 Casini, Michael Peter, Memphis  
 Castellaw, Mark Allan, Memphis  
 Cattau Jr, Edward Leroy, Memphis  
 -Chambers Jr, John Wallace, Memphis  
 Chance, Joseph Walker, Memphis  
 \*Chappell, Fenwick W, Memphis  
 -Charles, Kelli Michelle, Memphis  
 Charles, Steve, Memphis  
 Chase, Nancy Ann, Memphis  
 Cheek, Richard Calvin, Memphis  
 Chesney, Carolyn M, Memphis  
 Childers, Jennifer W, Memphis  
 -Childress, Clarence Gregory, Memphis  
 -Childress, Gregg, Memphis  
 Childress, Rommel Gabriel, Memphis  
 -Chism, Sheryl Chantay, Memphis  
 Chisolm, John Cobeen, Memphis  
 Christopher, Robt Paul, Memphis  
 Chu, George, Memphis  
 Chuang, Howard J, Memphis  
 Cicala, Roger Stephen, Memphis  
 Clarendon, Colin C D, Memphis  
 Clark Jr, Dwight Witt, Memphis  
 Clark, John Douglas, Cordova  
 Clark, Winston Graig, Memphis  
 -Clarke, Catherine Jane, Memphis  
 \*Clarke, Charles L, Memphis  
 -Clausen, Peter Valentine, Memphis  
 Clemons, Mark P, Memphis  
 -Clifford, Christopher H, Columbia  
 -Clifton II, Bobby G, Leoma  
 Clogston, Charles, Memphis  
 -Cloud, Mark William, Memphis  
 -Cobb Jr, David Lawrence, Memphis  
 \*Cocke Jr, Edwin W, Memphis  
 Cockroft, Robert Lawrence, Germantown  
 Cohen, Alan Jay, Memphis  
 Cohen, Lawrence Louis, Memphis  
 Cole III, William L, Memphis  
 Cole Jr, F Hammond, Memphis  
 \*Cole, Francis Hammond, Memphis  
 Cole, Frederick L, Memphis  
 -Collins, Leslie Susan, Nashville  
 \*Collins, Blaine C, Memphis  
 \*Collins, Frank H, Memphis  
 -Compton, Raymond P, Johnson City  
 -Conrad, Michael James, Cordova  
 Conrad, Lynn, Memphis  
 \*Conway, John Patrick, Memphis  
 -Cooper, Steve W, Memphis  
 Cooper, Charlie Walter, Memphis  
 Cooper, Raymond Lebron, New Orleans, LA  
 -Copeland, John, Memphis  
 -Copeland Jr, Jessie Lee, Memphis  
 Copeland, Geo D, Memphis  
 Corley, Glenna J, Tuscola, IL  
 Cornelius, Leland Raeburn, Germantown  
 Couch Sr, Charles E, Memphis  
 Counce, Michael F, Memphis  
 Courington, Doris Payne, Memphis  
 Cowan Jr, George S M, Memphis  
 Cowles, Stephan Joseph, Memphis



-Cox, Christopher Ramsey, Memphis  
-Cox, Gregory, Memphis  
Cox III, Sam J, Memphis  
Cox, Clair Edward, Memphis  
-Crabtree, Barry Dewayne, Memphis  
-Craig, Jim C, Memphis  
-Craig, Laurin A, Memphis  
-Craig, Michael Scott, Memphis  
-Crater, Glenn D, Memphis  
Craven, Rufus Edgar, Memphis  
Crawford, John D, Collierville  
Crenshaw Jr, Andrew H, Memphis  
Crenshaw, Thomas H, Memphis  
Creson Jr, Thomas K, Memphis  
Crews, John T, Memphis  
Crisler Jr, Herman A, Memphis  
Croce, Martin A, Memphis  
Crockarell, John Reams, Memphis  
Crone, Robert A, Memphis  
Crosby, Virgil Glenn, Memphis  
-Crouch, Stephen H, Charlotte, NC  
-Crowe, Leigh Ann, Memphis  
Crupie, Joseph E, Memphis  
Crutcher, Nancy, Memphis  
-Cummings, Allison C, Memphis  
Cummings, John M, Memphis  
\*Cummins, Alvin Jos, Memphis  
-Cunningham III, Thomas M, Memphis  
Cunningham, Dale Preston, Germantown  
Cunningham, David Lane, Memphis  
Cunningham, Mark Lane, Memphis  
Curle, Ray Eugene, Memphis  
Currey, Thomas Arthur, Memphis  
Curtis, Karen Louella, Memphis  
Dang, Luu Huy, Germantown  
Daniels Jr, William Ward, Cordova  
-Darling, Jana M, Memphis  
-Darville, Gregory Leroy, Memphis  
Daugherty, David R, Cordova  
Davidson III, Orin L, Memphis  
-Davis, Matthew P, Memphis  
Davis Jr, Jesse Theo, Memphis  
Davis, Edna M Fitzjarrel, Memphis  
Dawoud, Samir Riad, Memphis  
-DeBruycker, Timothy M, Memphis  
DeFranco, Joseph A, Memphis  
\*DeMere, McCarthy, Memphis  
\*DeSaussure Jr, R L, Memphis  
DeShazo, Michael Henry, Memphis  
-DeVersa, Peter R, Memphis  
DeWeese, Melvin Wayne, Memphis  
Dean, Patrick Joseph, Memphis  
Deaton, William Jerry, Memphis  
Dellinger Jr, Hubert L, Memphis  
Dempsey, Buckley Kinard, Germantown  
Dempsey, Thomas Jackson, Memphis  
Denton Jr, Randy L, Memphis  
-Deppen, Cathy Alice, Memphis  
Deshaies, Roger, Memphis  
Dewane, Joseph C, Memphis  
-Dewey, W Chapman, Memphis  
Digaetano, Dolores Maria, Cordova  
\*Diggs, Lemuel Whitley, Cordova  
Dilawari, Raza Ali, Memphis  
Dirghangi, Jayanta, Memphis  
Dirmeyer, Phillip Hays, Memphis  
Disney, Jere Michael, Memphis  
Dobson, John M, Memphis  
-Dobyns, Perry, Memphis  
-Dockery, Brian Keith, Memphis  
Dodd, David J, Memphis  
Dodd, Richard W, Memphis  
Dohan Jr, Francis Curtis, Memphis  
Donahue, David J, Memphis  
Dorian, John Bernard, Memphis  
Dorroh, Charles William, Memphis  
-Doty II, John D, Memphis  
\*Dowling, Charles Victor E, Memphis  
Downey, Richard S, Memphis  
Dragutsky, Michael Steven, Memphis  
Drake, Arnold Mannas, Memphis  
Drenning, Paul Thomas, Memphis  
Drewry Jr, Richard Danl, Memphis  
-Driggers, Rita Wesley, Memphis  
Duberstein, Larry Edwin, Memphis  
Duckworth, Nancy C H, Memphis  
Dugdale, Marion, Memphis  
Duggirala, Vijaya L, Memphis  
-Duke, Anton L, Memphis  
\*Duke, Don DeWindle, Memphis  
Duke, Robert Aubrey, Memphis  
Dunavant Jr, William David, Memphis  
\*Dunavant, William David, Memphis  
-Dunaway, Peter, Memphis  
Dunaway, Dan Alexander, Memphis  
Duncan, Jerald Mark, Cordova  
Duncan, Thane Edward, Arlington  
Duncan-Cody, Barbara A, Memphis  
-Dunlap, Chris, Memphis  
\*Durfey, John Quincy, Memphis  
Eason, Hamel Bowen, Memphis  
Eastmead, Donald Joseph, Memphis  
Economides, Nicholas-John, Memphis  
Edelson, Michael L, Memphis  
-Edmonson, James D, Jackson, MS  
Edmonson, Allen S, Memphis  
Edwards Jr, Lelon O, Germantown  
Edwards, Mark S, Memphis  
Edwards, Neil B, Memphis  
Efird III, Walter Guy, Memphis  
Eggers, Frank M, Memphis  
-Eidson, Timothy, Memphis  
-Eikholtz, James Noah, Memphis  
Eldridge, Russell M, Memphis  
-Ellis, Jacqueline, Memphis  
-Ellzey, John A, Memphis  
-Emerson, Shane, Rocky Hill, CT  
Emerson, Donald Stewart, Memphis  
Emmett, John Roy, Memphis  
Engelberg, Jerry, Memphis  
Ennis, Kenneth A, Memphis  
Ennis, Richard Lyn, Memphis  
Ensor, James K, Germantown  
Entman, Howard, Memphis  
\*Erickson, Cyrus Conrad, Memphis  
Ernst, Thomas Lynn, Memphis  
Estes, Dale Nichols, Memphis  
\*Etteldorf, James N, Memphis  
\*Ettman, Irving Kelsey, Memphis  
\*Evans, Milton Lee, Memphis  
\*Everett Jr, Bennett E, Memphis  
-Eyring II, Edward Joseph, Memphis  
Fabian, Timothy Charles, Memphis  
Falvey, William Davis, Memphis  
Fancher, William H, Memphis  
Fanning, David, Memphis  
Faguin, Cornell Chas, Memphis  
-Farmer, Christy, Paris  
-Farnsworth, Samuel Eric, Memphis  
Farrar, Thomas Crowell, Nashville  
\*Farrar, Turley, Pelzer, SC  
\*Farrow Jr, C Creston, Cordova  
Faulkner, William L, Memphis  
-Feagins, Stephen Ray, Memphis  
-Fee, Kirk A, Memphis  
Feild, James Rodney, Memphis  
\*Feinstein, Harold, Memphis  
Feler, Claudio A, Memphis  
Felker, Richard Edwin, Memphis  
Ferguson, John Mitchell, Memphis  
Ferguson, Robert, Memphis  
Ferrell, Thaddeus Hagan, Memphis  
Fesmire, William Murray, Memphis  
Fidler Jr, William Jonas, Memphis  
-Finch, Max Cortez, Memphis  
-Fincher, Helen Horn, Memphis  
Findley, Dwayne D, Memphis  
Fink, Robert David, Memphis  
Finn, Cary Martin, Memphis  
-Finney, Patrick, Memphis  
Fisher Jr, Joseph N, Memphis  
\*Fisher, Danl F, Memphis  
Fisher, Robert Moore, Memphis  
Fitch, Sarah, Memphis  
Flanagan, William H, Memphis  
Fleming, Irvin Durant, Memphis  
Fleming, James Christian, Memphis  
Fleming, Julian Glenn, Memphis  
Fleming, Richard M, Memphis  
Flinn Jr, George Shea, Memphis  
Flinn, Carl Edwin, Memphis  
Florendo, Noel Tadiar, Memphis  
Flowers, Wm Parks, Memphis  
Fodiman, Martin S, Germantown  
Folse, Timothy, Memphis  
Foner, Max, Memphis  
Fong, Terry, Germantown  
-Ford, David William, Mt Pleasant, SC  
-Ford, Marc R, Memphis  
Fortune, James Everett, Memphis  
Foster, Michael E, Southaven, MS  
Fountain Jr, Francis F, Memphis  
Foust, John Thornton, Oak Ridge  
Fowler Jr, John W, Memphis  
Fowler, Tommy S, Memphis  
-Fox, James E, Memphis  
-Fox, John Robert, Memphis  
-Fox, Lana G, Memphis  
Fox, Teresa Otey, Memphis  
Francis III, Hugh, Memphis  
Francis Jr, Hugh, Memphis  
Francisco, Jerry Thos, Memphis  
-Franklin, Edward Arthur, Memphis  
Franklin, Edgar R, Memphis  
Frederick, Randall Carl, Memphis  
Freeman III, Barney Lynn, Memphis  
Freeman, Jerre Minor, Memphis  
\*French, William E, Germantown  
Frieder, Barry Wayne, Memphis  
Friedman, Harry, Memphis  
-Friedrich, Angela, Memphis  
-Frigon, Vaughn, Memphis  
-Frizzell, Bart, Memphis  
Frommlet, Michael, Memphis  
-Fung, Hui-Ning, Memphis  
Furr, Philip Marvin, Memphis  
\*Fustle, Ricardo R, Key Biscayne, FL  
Futrell, Thomas Walter, Memphis  
Gaber, Ahmed Osama, Memphis  
-Gadomski, Regina T, New York, NY  
Gaillard, Thaddeus B, Memphis  
Gaines, Kenneth J, Memphis  
Galindez, Elaine G, Memphis  
\*Galindez, Telmo, Memphis  
-Galloway, Andrea, Memphis  
Galyean, James R, Memphis  
Galyon, James Theodore, Memphis  
Gamble, Lawrence L, Memphis  
Gammill, Stephen Lane, Memphis  
-Gannon, Brian S, Memphis  
Gant, Linda L, Cordova  
-Gardner, J Eric, Memphis  
Gardner Jr, Lawrence G, Memphis  
Gardner, John Harvey, Memphis  
Garrett Jr, Harvey E, Memphis  
Garrett, William Edward, Memphis  
Gavant, Morris Leonard, Memphis  
\*Gay, James R, Lakewood, PA  
Gayden, Evelyn Wilkerson, Memphis  
Gayden, John O, Memphis  
Gehi, Mohan M, Memphis  
-Geisler, William M, Memphis  
Gelfand, Michael S, Memphis  
-Gentry, Shawn N, Memphis  
George, David Lewis, Memphis  
George, Lewis Watson, Memphis  
George, Morris, Memphis  
Gerald, Barry Elmo, Memphis  
-Gernt, Paige Renee, Memphis  
Geshke, Terrence Edward, Memphis  
Gettelfinger, Thomas C, Memphis  
-Getzoff, Andrew, Memphis  
-Giger, Jerri L, Memphis  
-Gillenwater, David Ray, Church Hill  
-Gillespie, Sarah, Memphis  
\*Gilluly, John Jos, Memphis  
Gilmore, James C, Memphis  
\*Ginn, Bobby H, Memphis  
Gipson, Stephen Lavon, Memphis  
\*Gish, George Edward, Memphis  
-Givens, Preston G, Memphis  
Glotzbach, Raymond E, Memphis  
-Goff, Sharon Denise, Memphis  
\*Gokturk, Turgut Kemal, Memphis  
Gold, Robert E, Memphis  
Golden, Gerald S, Memphis  
Goldin, Melvin Lester, Memphis  
Gooch, Jerry Burton, Memphis  
Goodman, Jack A, Memphis  
Goodman, Ralph C, Memphis  
-Goodwin, Brenda, Memphis  
-Gorden III, Lemuel D, Gainesville, FL  
Gorline, William James, Memphis  
Goshorn, Neumon Taylor, Memphis  
Gotten Jr, Nicholas, Memphis  
\*Gotten, Nicholas, Memphis  
-Gouden, Michael R, Memphis  
-Gourley, Korin L, Memphis  
\*Gourley, Robt Dunseith, Memphis  
Gragg, G Winston, Memphis  
-Grant, Christy Anne, Memphis  
Gratz Jr, John Fisher, Memphis  
-Graves, J Christopher, Memphis  
Graves Jr, Lester R, Memphis  
Graves, Stanley, Memphis  
-Gray, Bruce Frank, Memphis  
-Green, Christie Ann, Memphis  
-Green, Heather Diane, Memphis  
-Green, Jeffrey W, Germantown  
Green Jr, James Butler, Memphis  
Greene Jr, Robert W, Memphis  
Greenwell, Thomas D, Memphis  
-Greer, Jack Ewell, Memphis  
-Grey, Elizabeth Nani, Memphis  
-Griffin, Chad Aubrey, Memphis  
Griffin, Daniel Eugene, Memphis  
-Griffith, Mack Wilson, Memphis  
Grimm, Leander Morel, Southaven, MS  
Grise, Jerry Wade, Memphis  
Grobmyer III, Albert Jos, Memphis  
\*Grobmyer Jr, Albert Jos, Memphis  
Grogan Jr, Fred T, Cordova  
Grossman, Ronald K, Memphis  
-Gurevitch, Earl Jeffrey, Memphis  
-Hagler, Heidi Elizabeth, Kingston  
\*Haimsohn, James S, Memphis  
Halford III, Hollis H, Memphis  
\*Halford Jr, Hollis H, Memphis  
Halford, Jack Richard, Germantown  
-Hall, Denver Ray, Memphis  
Hall, Johnnie Cameron, Germantown  
\*Hall, Sylvia A, Memphis  
\*Halle, Margaret J A, Memphis  
-Hamada, Omar, Memphis  
Hamby, Donald Lynn, Memphis  
Hamilton III, Fred H, Memphis  
Hamilton, Emily Thomas, Memphis  
Hamilton, Ralph F, Memphis  
Hamilton, Ralph S, Memphis  
\*Hamilton, William Thomas, Memphis  
Hamlett III, James M, Memphis  
Hammond, Mark L, Germantown  
\*Hamsher, John B, Memphis  
Handorf, Charles Russell, Memphis  
-Hankley, Daniel, Memphis  
-Hanson, Charles C, Memphis  
-Harders, Gregory P, Memphis  
Hardin, William G, Memphis  
Harkess, James W, Memphis  
-Harper, Melinda C, Memphis  
Harriman, Mark S, Memphis  
Harrington, Oscar B, Memphis  
Harris, Buford Terrell, Memphis  
Harris, John Joel, Memphis  
Hasen Jr, Howard B, Memphis  
\*Hasen, Howard B, Memphis  
-Haskins III, Thomas G, Memphis  
Hatch Jr, Fred E, Memphis  
-Hausmann, James Stanford, Memphis  
\*Hawkes, Alfred Kenneth, Memphis  
\*Hawkes, C Douglas, Marco Island, FL  
\*Hawkes, Jean Murray, Marco Island, FL  
\*Hay, Cyril Leon, Memphis  
Hayes III, Wayland J, Collierville  
Hayes Jr, William R, Memphis  
Hayes, William Timothy, Memphis  
Haykal, Radwan F, Memphis  
-Hays Jr, Edwin Carlton, Memphis  
Hays, Rachael Ann, Arlington  
Hazlehurst Jr, Waring M, Memphis  
Headley, Arthur Stacey, Memphis  
-Hefner, Denise M, Memphis  
Hellman, Michael D, Memphis  
Helton, Stephen Lane, Nashville  
Henard, Donald Claude, Memphis



\*Hendrix Jr, James H, Memphis  
 Henley III, Russell, Memphis  
 Herndon Jr, Bruce Wayne, Memphis  
 Herrera, Fernando A, Memphis  
 Hethmon, Carol-Lynn B, Memphis  
 -Heverly, Skip, Memphis  
 Hiatt, Roger Lew, Memphis  
 Hickerson, William L, Memphis  
 Hickey Jr, Homer David, Memphis  
 -Hidaji, Faramarz F, Memphis  
 Higdon, Dennis Alan, Memphis  
 Higginbotham, Thomas Wayne, Memphis  
 -Hill, Melanie Carol, Memphis  
 -Hill, Pamela McQuillen, Memphis  
 \*Hill, Fontaine S, Memphis  
 Hill, John Roy, Memphis  
 Hilsenbeck Jr, John Robert, Memphis  
 Himmelstein, Stevan, Memphis  
 Hines III, Elbert E, Memphis  
 Hines, Leonard Harvey, Memphis  
 -Hinson, Mark Sidney, Memphis  
 Hixson, Sherman D, Memphis  
 Hodges, John McIver, Memphis  
 -Hoffman, Paul Erich, Memphis  
 Hoffman Jr, Walter K, Memphis  
 Holcomb, Randall L, Memphis  
 Hollabaugh, Robt Sterling, Memphis  
 Holland, Nancy Elizabeth, Memphis  
 Holley Jr, Joseph Eugene, Cordova  
 Hollis, David O, Memphis  
 Holloway Jr, David Hoyt, Memphis  
 \*Holmes, James Elmore, Memphis  
 -Holyfield, Christina Ann, Memphis  
 -Hood, Roy L, Memphis  
 Hood, Stephen Thos, Memphis  
 Hopkins, Jack T, Memphis  
 Horne, Arthur E, Memphis  
 \*Horton, Glenn Edward, Memphis  
 \*Hotchkiss, Hubert Leech, Brentwood  
 -Houk, Larry W, Memphis  
 \*Housholder, Charles H, Memphis  
 \*Houston, John L, Memphis  
 Howser, John Patton, Memphis  
 -Hubbard, Jason R, Memphis  
 Hubbard, Ronald Eugene, Memphis  
 -Hudson, Clay B, Memphis  
 Hudson, Joseph S, Memphis  
 Huffman, John David, Memphis  
 Hughes, Christopher B, Cordova  
 \*Hughes Jr, Felix A, Memphis  
 Hughes, Allen Holt, Memphis  
 \*Hughes, James Gilliam, Memphis  
 \*Hughes, John Davis, Germantown  
 Hughes, Robt Rule, Memphis  
 Hughes, Thomas Arthur, Memphis  
 Hughey, John R, Memphis  
 -Hulse, Michael Andrew, Memphis  
 Hummel, John Vernon, Germantown  
 Humphreys, Robert A, Memphis  
 -Hunt, Elbert Anthony, Memphis  
 Hunt, James Calvin, Memphis  
 -Hunter Jr, Alton Lee, Memphis  
 Hunter, Saml E, Memphis  
 Iansmith, David Hayden S, Memphis  
 \*Ijams, Joe Hartley, Memphis  
 Ilabaca, Patricio A, Memphis  
 \*Ingram, Alvin John, Memphis  
 -Irwin, Craig, Memphis  
 Jabbour, C Eugene, Memphis  
 Jabbour, J T, Memphis  
 Jacewicz, Michael, Bartlett  
 -Jackson, Samuel David, Memphis  
 Jackson, Barbara Kay, Memphis  
 Jackson, Robert Lewis, Memphis  
 Jackson, Thomas M, Memphis  
 Jacobs, Arthur Elliott, Memphis  
 Jalfon, Isaac Mitrani, Memphis  
 \*James, Hal Pearson, Memphis  
 Jameson, William Dean, Memphis  
 Jarrett Jr, Charles Leslie, Memphis  
 Jauchler, Gerard W, Memphis  
 Jean-Pierre, Antoine, Memphis  
 -Jefferies, Lynn, Memphis  
 -Jenkins, Amy B, Memphis  
 Jenkins, Gregory Keith, Memphis  
 Jenkins, Jon Calvin, Memphis  
 Jennings, David Keith, Memphis  
 Jerkins, Gerald Ray, Memphis  
 \*Jerome, Anthony Paul, Memphis  
 -Jobe, John Stephen, Brentwood  
 Jobe, Mark Tilden, Memphis  
 Joe, Penn Quork, Memphis  
 -Johnson, Alex W, Lexington, KY  
 -Johnson, Steven P, Memphis  
 Johnson, James Gibb, Memphis  
 Johnson, Janet K, Cordova  
 Johnson, Larry Holliday, Memphis  
 Johnson, Robert Alan, Memphis  
 Johnson, Ronald Jackson, Memphis  
 -Jolley, Kellie A, Memphis  
 -Jones, Bradley K, Memphis  
 -Jones, Jeffrey N, Memphis  
 \*Jones Jr, George, Germantown  
 \*Jones Jr, Sidney D, Memphis  
 Jones, Clay V, Memphis  
 Jones, Douglas E, Memphis  
 Jones, James Wesley, Cordova  
 Jones, Joe Paul, Memphis  
 Jones, R Luby, Southaven, MS  
 Jones, Robt Riley, Memphis  
 Jones, Wesley Earl, Memphis  
 Joyner, Royce Etienne, Memphis  
 Justis, E Jeff, Germantown  
 Kahn, Sherman Elliot, Memphis  
 -Kalish, Robin, Memphis  
 -Kamin, Ehud Ron, Memphis  
 Kandalaft, Victoria A, Memphis  
 Kang, Andrew Ho, Memphis  
 -Kanos, Charles C, Memphis  
 Kaplan, Edward Steven, Memphis  
 Kaplan, Robt Joel, Memphis  
 Kaplan, Stanley Baruch, Memphis  
 Karkera, Mohandas S, Memphis  
 -Karr, Barbara Geater, Hernando, MS  
 Kassees-Wahid, Laila, Memphis  
 \*Kasselberg, Lyman A, Memphis  
 Kasser, Christine L, Germantown  
 Katz, Paul Jay, Memphis  
 Kavanagh, Kevin T, Memphis  
 -Kazempour, Ace, Memphis  
 Keegan, Mary Leigh, Memphis  
 -Keizer, Laverne R, Memphis  
 Kellermann, Arthur L, Memphis  
 Kellett, Gary Leon, Memphis  
 Kelley, Bobby Jerald, Memphis  
 -Kelly, Wayne Scott, Memphis  
 Kendrick Jr, William Riley, Memphis  
 Kennedy, A Franklin, Germantown  
 Kerlan, Robt Ashley, Memphis  
 \*Kessler, Henry G, Memphis  
 Khandekar, Alim, Memphis  
 Khandekar, Sophia Haque, Memphis  
 Khuri, Radwan R, Memphis  
 Kiefer, Patsy R, Memphis  
 Kiledjian, Vartkes, Memphis  
 -Kim, Grace S, New York, NY  
 -Kim, Marianne H, Memphis  
 Kimball, Noah Braden, Memphis  
 Kimzey, Gary, Memphis  
 -Kinder, John R, Memphis  
 -King, Matthew J, Memphis  
 King Jr, William Scott, Memphis  
 King, Billy W, Millington  
 \*King, Charles Mack, Memphis  
 King, Paul, Memphis  
 King, Truman Franklin, Memphis  
 Kington, John Michael, Memphis  
 Kinnard, Jennifer J, Memphis  
 -Kirk, Gregory L, Memphis  
 Kirkpatrick, Robt Dean, Memphis  
 -Kirschman, Jeffrey C, Memphis  
 Kitabchi, Abbas Egbal, Memphis  
 Klein, Linda M, Memphis  
 Klein, Timothy, Memphis  
 Kline, Robt Paul, Memphis  
 \*Klotz, William F, Memphis  
 -Knight, Charles W, Memphis  
 -Knight, Penny L, Memphis  
 Knight, William H, Memphis  
 -Kobes, Peter J, Memphis  
 -Koelach, David W, Cordova  
 Kojas, Abed A, Memphis  
 Koleyni, Asghar, Memphis  
 \*Koonce, Marshall Lynn, Memphis  
 \*Kossmann, Charles E, Memphis  
 Kraus, Alan Jeffrey, Memphis  
 \*Kraus, Alfred Paul, Memphis  
 Kraus, David H, Memphis  
 Kraus, Gordon Jerome, Memphis  
 Kraus, Melvin M, Memphis  
 Kraus, Robert M, Memphis  
 Kreth, Timothy Kerwin, Memphis  
 Kriger, Sidney H, Memphis  
 Krisle Jr, Joe Richard, Memphis  
 Kronenberg, Joel I, Memphis  
 Kudsk, Kenneth Allan, Memphis  
 Kulp, Roy, Memphis  
 Kumar, A P Mahesh, Memphis  
 \*Kuykendall Jr, Nathaniel, Memphis  
 -Kuzucu, Mark E, Memphis  
 \*Kyle, Jos Warren, Memphis  
 \*LaVelle Jr, Herman G, Memphis  
 LaVelle, David G, Memphis  
 -Lacy, Michael, Memphis  
 Land, Mack A, Memphis  
 \*Landsee, Carl Geo, Millington  
 Landy, Stephen Hall, Memphis  
 Langford Jr, C Thomas, Memphis  
 Langsdon, Phillip Royal, Memphis  
 Larkin, Charles Newton, Memphis  
 -Lassiter, Gregory, Memphis  
 Laster Jr, Robt Eugene, Memphis  
 \*Lathram Jr, Marvin W, Memphis  
 Latta III, George Haverth, Memphis  
 Laughlin Jr, Albert E, Memphis  
 \*Laughlin Sr, Albert E, Memphis  
 -Lavelly, William Calvin, Memphis  
 Lawrence, Jesse Alvah, Memphis  
 -Lawson, William Edward, Memphis  
 \*Lawson, Robt Edward, Memphis  
 Lawson, Ronald D, Memphis  
 Lazar, Edward Harry, Memphis  
 Lazar, Rande H, Memphis  
 -LeBel, Joseph S, Memphis  
 Lebovitz, M A, Memphis  
 Lederer Jr, James W, Memphis  
 Ledes, Claude, Memphis  
 Lee, Ling Hong, Memphis  
 Lee, Sidney Reaves, Memphis  
 \*Lefkowitz, Aaron M, Deerfield Beach, FL  
 Lemmi, Helio, Memphis  
 Lemmi, Michael A, Memphis  
 -Lentz, Jonathan, Memphis  
 Leung, Richard K F, Memphis  
 Leventhal, Marvin R, Memphis  
 Levinson, Michael Jay, Memphis  
 Levitch, Melvyn Abraham, Memphis  
 Levy, Joe S, Memphis  
 -Lewis, Jacqueline A, Memphis  
 Lewis, Myron, Memphis  
 -Libby, Elizabeth L, Memphis  
 Lieberman, Gerald J, Memphis  
 Lieberman, Phillip Louis, Memphis  
 Light, William Harry, Germantown  
 -Ligon, Jeff Jackson, Memphis  
 Linder, Hilary Francis, Memphis  
 Lindermuth, John R, Memphis  
 Ling, Frank W, Memphis  
 Linn, John Edward, Memphis  
 \*Lipscomb, Alys H, Memphis  
 Lipsey, Geo Gartley, Memphis  
 Litch Jr, Melvin, Memphis  
 -Little, James P, Memphis  
 -Little, John P, Memphis  
 Little Jr, William R, Memphis  
 \*Livermore Jr, Geo R, Memphis  
 -Loden, Jim, Memphis  
 -Long, Mark Anthony, Memphis  
 \*Long, Charles Edward, Memphis  
 Long, Diane M, Memphis  
 Long, Thomas E, Memphis  
 Long, William E, Memphis  
 -Looney, Jeffrey Ray, Memphis  
 Loughheed, Joseph C, Memphis  
 Love, Varna Mae Peyton, Memphis  
 \*Lovejoy, George S, Memphis  
 \*Loving, Martha A, Memphis  
 -Lowe, Elizabeth S, Chicago, IL  
 -Lowe, Stephen C, Memphis  
 -Lucas, Todd, Memphis  
 Luncford, Travis E, Memphis  
 Luther, Robt Wayne, Memphis  
 Lyell, Reggie, Cordova  
 Lynch, Michael Hardy, Memphis  
 -Mabry, Iris Renee, Memphis  
 Mabry Jr, Edward Hays, Memphis  
 \*Mabry, Edward Hays, Memphis  
 Machin, James Elliott, Memphis  
 \*Mackey, William Frederick, Memphis  
 Maddux Jr, H Benjamin, Memphis  
 \*Maddux, Holt Benj, Memphis  
 Maduska, Albert Lowell, Memphis  
 Magee, Timothy Michael, Memphis  
 Magill, Hubert Lynn, Memphis  
 Maguire, James K, Memphis  
 Mahan, Meredith Lynn, Memphis  
 Maier, George W, Richmond, VA  
 -Major, John Scott, Memphis  
 -Mancell, Jimmie, Memphis  
 Mandell, Alan I, Memphis  
 -Maness, Kimberly J, Cincinnati, OH  
 Mangiante, Eugene C, Memphis  
 -Mangrum, Timothy Carlton, Memphis  
 -Mann, Pamela Ruth, Memphis  
 Mann, James Alan, Memphis  
 Manugian, Arsen, Memphis  
 -Manzo, Andrea R, Memphis  
 Mariencheck, William Irvin, Memphis  
 Marker, Howard Wm, Memphis  
 \*Markle, Philip Metric, Memphis  
 Marshall, Daniel P, Memphis  
 Marshall, Michael Ralph, Memphis  
 -Martin, Amy G, Memphis  
 -Martin, Debra M, Memphis  
 Martin Jr, Henry Frank, Memphis  
 Martin, Daniel C, Memphis  
 \*Mason, William W, Mount Dora, FL  
 Massie, James D, Memphis  
 -Mathews, Jeffrey A, Memphis  
 \*Matthews, Oliver S, Memphis  
 Mauldin, Gregory, Memphis  
 -Maul, Chris Doyle, Memphis  
 \*Mayer, Raymond Franklin, Ward, AR  
 \*Mayfield, Leroy H, Memphis  
 -Maynard, Samuel L, Memphis  
 -Mays, Bryce C, Memphis  
 Mays, Kit Sanford, Memphis  
 McAfee, James Earl, Memphis  
 -McAllister II, Jonathan, Memphis  
 McBrayer, John D, Memphis  
 \*McCall, John William, Blowing Rock, NC  
 McCalla, Mary Rainey, Memphis  
 McCallum, Lee Wilkes, Memphis  
 \*McCarter Jr, John G, Memphis  
 McCaslin, Mark D, Memphis  
 McCloy, Randolph M, Memphis  
 -McClure, Daniel Joe, Memphis  
 McClure, James G, Memphis  
 \*McCool, D C, Memphis  
 McCormack, Harold Arthur, Memphis  
 McDaniel III, Carter E, Memphis  
 \*McDaniel, E F, Memphis  
 McDonald, Mary Neumann, Memphis  
 McDonald, Michael Baird, Memphis  
 McEwan Jr, Robert C, Memphis  
 McGee, Jesse Edward, Memphis  
 McGehee, J Lucius, Memphis  
 McGowan, Leslie R, Memphis  
 McGrew III, Frank A, Memphis  
 McKenzie, Eugene Eaton, Memphis  
 \*McKinney, James W, Memphis  
 McLarty, Alexander M, Memphis  
 \*McLarty, Barney Estes, Memphis  
 McLendon, Richard Ellison, Memphis  
 -McMackin, Vanessa, Memphis  
 -McNall, Rene Yvonne, Bartlett  
 McSwain, Harold M, Memphis  
 -Memzer, Frieda M, Memphis  
 -Merhoff, Vance F, Memphis  
 Meriwether III, Thomas W, Memphis  
 Merritt, Lauren N, Memphis  
 -Mestemacher, Nellie Smith, Memphis  
 Metzger, William Edgar, Memphis  
 Meyer, David, Memphis  
 Michael, Ronald C, Memphis



\*Miles, Robert Millard, Memphis  
 \*Milford Jr, Lee Watson, Memphis  
 -Miller, Marvin Tyrone, Memphis  
 Miller III, Robert Horace, Memphis  
 \*Miller, Fountain Fox, Memphis  
 Miller, Joe Hardy, Memphis  
 Miller, Mark P, Cordova  
 \*Miller, Richard Alvah, Memphis  
 \*Miller, Richard B, Memphis  
 Miller, Thomas Iva, Memphis  
 -Milligan, Kerry, Memphis  
 \*Mills, Geo T, Monroe, NC  
 Milnor III, John Pervis, Memphis  
 \*Milnor Jr, J Pervis, Memphis  
 Minkin, Irving C, Memphis  
 -Mishra, Susmita, Memphis  
 -Mitchell, Gregg E, Memphis  
 -Mitchell, Gregory C, Memphis  
 Mitchum, James R, Memphis  
 \*Mitchum, William Robson, Memphis  
 \*Mobley, Everett C, Memphis  
 \*Moeller Jr, Benjamin A, Eads  
 Moffatt III, William Lee, Memphis  
 \*Mogan, Edward Nenon, Germantown  
 Moinuddin, Mohammed, Memphis  
 Moinuddin, Shamim, Memphis  
 Monaghan, Thomas W, Memphis  
 Monger Jr, Ralph Horace, Memphis  
 -Montgomery, Stephen Anthony, Memphis  
 Montouris, Georgia D, Memphis  
 -Moomey Jr, Charles Bruce, Memphis  
 -Moore, Sarah E, Memphis  
 \*Moore Jr, Fontaine B, Memphis  
 \*Moore Jr, Moore, Memphis  
 \*Moore, David F, Memphis  
 Moore, Dwight M, Memphis  
 Moore, James A, Memphis  
 \*Moore, Marion Robertson, Memphis  
 -Moretta, Anthony C, Memphis  
 Morgan, Jack Colbert, Memphis  
 Morisy, Lee Richard, Memphis  
 -Morris, John Thomas, Memphis  
 Morris, Glenn Scott, Memphis  
 Morris, John Thos, Memphis  
 Morris, William Randolph, Germantown  
 Morrison, Larry Burt, Memphis  
 Morrison, Michael Burch, Memphis  
 Morrison, Robert E, Memphis  
 Morse, William Hal, Memphis  
 Moser, Davis D, Memphis  
 -Mosher, Lisa C, Little Rock, AR  
 Moshier, William Hill, Memphis  
 \*Moss, John Palmer, Memphis  
 Moss, Mary Thomas, Memphis  
 \*Moss, Thomas Chester, Memphis  
 Moss, William Benjamin, Memphis  
 -Motley, Todd Seth, Memphis  
 Motley, Thomas Earl, Memphis  
 Moustafa, Salwa, Memphis  
 Muhlbauer, Michael Scott, Memphis  
 \*Muirhead, Ernest Eric, Memphis  
 Mullen, Jesse G, Memphis  
 Mullins, Calvin J, Memphis  
 Munn, Charles W, Bartlett  
 Murdock, Wade Thos, Memphis  
 -Murff, Harvey Johnson, Memphis  
 \*Murphey, Francis, Naples, FL  
 Murphy, James Garnett, Memphis  
 Murphy, Patrick J, Memphis  
 Murphy, William Mont, Memphis  
 \*Murray Jr, William Fitzhugh, Memphis  
 Murray, Ian Farrell, Memphis  
 Murrmann, Susan G, Memphis  
 -Myers, Craig, Memphis  
 Myers, Lisa Marie, Shreveport, LA  
 Myers, William Stanley, Memphis  
 -Naddy, Gibran B, Memphis  
 Nadel, Alan Marc, Memphis  
 Nakashima, James J, Memphis  
 -Nash, Dana A, Memphis  
 Nash, John Paul, Memphis  
 Nauert, Timothy Craig, Memphis  
 Nawaf, Kays, Memphis  
 -NeKoorad, Haleh, Memphis  
 -Neal, Mary E, Memphis  
 -Neblett, Paul D, Memphis  
 -Newman, Jerry Glynn, Memphis  
 Newman, Jeffrey Miles, Memphis  
 -Newton, Tara Lee, Memphis  
 -Ng, Chun Leung, Memphis  
 -Nguyen, Khuong V, Memphis  
 Nicholas, Lawrence M, Memphis  
 -Nichols III, Lorenzo D, Memphis  
 Nichopoulos, George C, Memphis  
 Nikolovski, Oliver T, Birmingham, MI  
 -Nix, Jeffrey Alan, Memphis  
 Nobles Jr, Eugene Rodman, Memphis  
 -Noe, Susan, Clarksville  
 Noe, Horace Norman, Memphis  
 \*Norman, Robt Sidney, Germantown  
 North, William C, Memphis  
 \*Northern Jr, William L, Memphis  
 Nyalakonda, Ashok Rao, Memphis  
 O'Brien Jr, Thomas F, Memphis  
 -O'Cain, Heather, Memphis  
 O'Connell, John F, Germantown  
 O'Sullivan, Patrick Jos, Memphis  
 Ogle, Evelyn B, Memphis  
 Okrah, Amos, Memphis  
 -Oldham, Teresa A, Memphis  
 \*Olim, Charles Burton, Memphis  
 Olinger, Rodney Glenn, Memphis  
 \*Orman, Jos Cooke, Memphis  
 Orpet Jr, P E, Memphis  
 -Orthoefer, Carl, Memphis

-Osborn, F David, Knoxville  
 Osborn, Frank Jackson, Memphis  
 Osborne, Pamela Thompson, Memphis  
 Oster, Catherine J, Cordova  
 Oswald, William J, Memphis  
 Outlan, John Edward, Collierville  
 \*Outlan, William F, Collierville  
 Owen Jr, Edmond W, Memphis  
 -Owens, Schwanda Gail, Memphis  
 Owens, Donald D, Memphis  
 Owens, James Harvey, Memphis  
 \*Packer, Henry, Memphis  
 Page, Gene Ruffner, Memphis  
 Page, Roy C, Germantown  
 Pagidipati, Devaiah, Germantown  
 Paidipalli, Babu Rao, Memphis  
 Painter, Max Wesley, Memphis  
 -Pal, Mimi Indrani, Memphis  
 -Pallera, Arnel, Cordova  
 Palmer IV, Robert E, Memphis  
 Palmieri, Genaro Miguel A, Memphis  
 -Palmieri-Sevier, Ana K, Memphis  
 Pang Jr, Jim, Germantown  
 -Park, Christin C, Memphis  
 -Parker, Donald W, Memphis  
 Parker, Jos, Memphis  
 Parks, Frank D, Collierville  
 -Parnell Jr, Donald Hudson, Memphis  
 \*Parrott Jr, Charles William, Memphis  
 Parsons III, Ward Chester, Memphis  
 Partee, Brenda Demond, Memphis  
 Parvey, Louis S, Memphis  
 Paslawski, Walter, Germantown  
 \*Paster, Saml, Santamunich, CA  
 \*Pasternack, Morris, Memphis  
 Patchen, Mary Jane Ilsemann, Memphis  
 Pate, James W, Memphis  
 Pate, Kenneth Ray, Memphis  
 -Patel, Alpa V, Memphis  
 -Patel, Paul P, Memphis  
 -Patel, Shilpa, Memphis  
 -Patel, Sushil Raj, Memphis  
 Patel, Rahul L, Memphis  
 -Patterson, Kirsten J, Memphis  
 Patterson III, Russell H, Memphis  
 Patterson, Anthony Lynn, Memphis  
 Patterson, Charles Richard, Memphis  
 Patterson, Kelly, Memphis  
 Patterson, Sam Polk, Collierville  
 Patterson, Stanley Martin, Memphis  
 -Patton, Christopher M, Memphis  
 \*Paul, Raphael Nathan, Memphis  
 Payne Jr, Earnest B, Memphis  
 Payne, Paul A, Memphis  
 Pearson, Richard McQuiston, Memphis  
 -Pecha, Marc Daniel, Memphis  
 Pedigo, Phillip Adler, Memphis  
 Peeples Jr, John D, Memphis  
 Pender Jr, John Vincent, Memphis  
 -Pendergrass, Margaret B, Memphis  
 Perry, Edgar Emrich, Memphis  
 Perryman, Paul Edward, Memphis  
 -Pham, Loc B, Memphis  
 -Pharris, Larry J, Memphis  
 Phelps, William Charles, Memphis  
 -Phillips, David L, Memphis  
 -Phillips, Douglas R, Memphis  
 -Phillips, Timothy D, Memphis  
 Phillips Jr, F Edward, Memphis  
 Phillips, Barbara Lynne, Memphis  
 Phillips, Barry Brent, Germantown  
 Phillips, Jerry Clyde, Memphis  
 \*Phillips, William Earl, Memphis  
 -Philyaw, Kathy Renee, Cordova  
 Photopulos, Guy J, Memphis  
 \*Pian Jr, Maurice C, Memphis  
 -Pierce, Julia A, Memphis  
 Pigott, John D, Memphis  
 Pinson, E Louise, Memphis  
 Pinstein, Martin Lee, Memphis  
 -Pirani, John F, Memphis  
 Pitcock, James Allison, Memphis  
 Pivnick, Eniko Karman, Memphis  
 Platkin, Alan Bailey, Memphis  
 Plunk Jr, Otis A, Memphis  
 Polly, Stuart McGrath, Memphis  
 -Pomphrey, Margaret Anne, Memphis  
 \*Porter, Columbus Hassell, Birmingham, AL  
 Porter, William Richard, Bartlett  
 Porterfield, James G, Memphis  
 Posey, Michael Evans, Memphis  
 -Powell, Timothy John, Memphis  
 Powell, Carroll E, Memphis  
 Pratt, Edward S, Memphis  
 Pratt, Thomas H, Memphis  
 \*Price, James Howard, Memphis  
 \*Price, Robert Allen, Memphis  
 Pridgen, Stephen Allen, Memphis  
 Pridgen, William Roby, Memphis  
 \*Prieto Jr, Luis Carlos, Memphis  
 Pritchard, Frances E, Memphis  
 Proctor, Russell Jay, Memphis  
 Pruitt, David B, Memphis  
 -Puckett, Kim Leigh, Memphis  
 Pulsinelli, William A, Memphis  
 \*Putman, Billie Harold, Memphis  
 Quigley, Karen K, Memphis  
 Quimbayo, Jose A, Cordova  
 \*Quinn III, Peter Jos, Memphis  
 Rada III, John B, Memphis  
 Raghuvaiah, N V, Memphis  
 -Ragsdale, Timothy F, Memphis  
 Ragsdale, K Blake, Memphis  
 Rahman, Mahfuzur, Memphis  
 Raines, Edwin Allen, Memphis

Raines, Richard Brodnax, Memphis  
 \*Raines, Samuel Lucas, Memphis  
 \*Rainey, William Thomas, Memphis  
 Rains III, Boyce Manrin, Memphis  
 Ramanathan, Jaya, Memphis  
 Ramey III, Danl Randolph, Memphis  
 Randolph, Paul Douglas, Memphis  
 Rao, Bhaskar Narayan, Germantown  
 Rawtani, Pallavi V, Memphis  
 Ray, Morris William, Memphis  
 -Rayudu, Sreedhar Rao, Germantown  
 Readan, Ruth Anne, Memphis  
 Reaves, Edward McCormick, Memphis  
 -Reddick, Bradley H, Memphis  
 Reed, Cheston Murray, Memphis  
 \*Reed, Edward Wilson, Memphis  
 Reed, Mark Loyd, Memphis  
 Reeder, Robt Canada, Memphis  
 \*Reese Jr, Harvey C, Memphis  
 \*Reese, Halden Eugene, Memphis  
 Reid, David Hollis, Cordova  
 Reid, Ishmael S, Memphis  
 -Reimers, Elizabeth E, Memphis  
 Reisser Jr, John Milton, Memphis  
 -Reiter, Amanda M, Memphis  
 Rentrop, Walter Anton, Memphis  
 Rentrop, William Emil, Memphis  
 Reyes, Nora V, Memphis  
 Reynolds, Gary Lynn, Memphis  
 Rhea Jr, Hal S, Memphis  
 Rice, Steven Nicholas, Memphis  
 Richards, Randolph Montgomery, Memphis  
 Richardson III, Robert L, Memphis  
 Richardson Jr, Robt Lee, Memphis  
 Richardson, Elbert Greer, Memphis  
 -Ricker, Shali M, Memphis  
 Riggs Jr, William Webster, Memphis  
 Riggs, Charles R, Memphis  
 -Rigsby, Thomas W, Memphis  
 \*Riley, Frances Osborn, Memphis  
 Ripps, Barry A, Memphis  
 Roane, Jourdan Archibald, Cordova  
 Robbins Jr, Samuel Gwin, Memphis  
 Robbins, Edward T, Memphis  
 -Roberson, Arthur E, Memphis  
 Roberts, Larry K, Memphis  
 -Robertson, Jennifer Shaw, Memphis  
 Robertson, James Thos, Olive Branch, MS  
 Robertson, Jon Hobson, Memphis  
 \*Robinson Jr, Chas G, Memphis  
 Robinson Jr, John Edward, Memphis  
 Robinson, James A, Memphis  
 Robinson, Lloyd Edward, Memphis  
 Robinson, Wiley Thomas, Memphis  
 Robison Jr, Lowell Benj, Memphis  
 Rodney, William M, Memphis  
 -Rojas, Phil Andrew, Memphis  
 Rojas, Norberto, Memphis  
 Roney, Ronald Steven, Memphis  
 Rosen, Gerald Michael, Memphis  
 Rosenberg, E William, Memphis  
 Rosenberg, Zachary, Memphis  
 Rosensweig, Jacob, Memphis  
 -Ross, Shea O'Neal, Memphis  
 Routt Jr, William Edward, Memphis  
 Ruch Jr, Walter Allwein, Memphis  
 Rucker, James Daniel, Germantown  
 -Ruffner, Katherine L, Memphis  
 Ruleman, Chester Allan, Memphis  
 -Rumley, Carla R, Memphis  
 Runyan Jr, John Wm, Memphis  
 -Rushing, Rodney Scott, Germantown  
 Rushing, Van, Memphis  
 -Russell, Kimberly Ann, Memphis  
 Russell Jr, John Murray, Memphis  
 Russell, Thomas Anthony, Memphis  
 -Russo, Robert Anthony, Memphis  
 Russo, William Louis, Memphis  
 -Rutherford, Joe Bostick, Memphis  
 Ryan Jr, Geo Marion, Memphis  
 -Sabbah, Ronnie, Cordova  
 Sacks, Harold Samuel, Memphis  
 -Sadler, Scott Michael, Memphis  
 Saenz, Rebecca B, Memphis  
 Safley Jr, Charles Franklin, Memphis  
 Sage, Fred P, Memphis  
 Saino, James D, Memphis  
 -Saito, Kaori, Memphis  
 Salazar, Jorge E, Memphis  
 -Salcedo, Eduardo A, Memphis  
 Samaha, Joseph K, Memphis  
 Sammons, Lehman Clark, Cordova  
 Samuels, Alan Danl, Memphis  
 Sander, Craig J, Memphis  
 -Sanders, Chris D, Memphis  
 Sanders, Frederick D, Memphis  
 Sanford Jr, Jack Carter, Memphis  
 Sanford, David Marshall, Memphis  
 Sanford, Robert Alexander, Memphis  
 Sargent, Susie Jane, Memphis  
 Sauter, Robert F, Germantown  
 Saxton Sr, Grady L, Memphis  
 -Scales Jr, Thomas Risdon, Memphis  
 \*Schaeffer Jr, S J, Memphis  
 \*Schaffer, Donald Earl, Memphis  
 Schanzer, Mary Cathleen, Memphis  
 \*Schettler, Betty J, Memphis  
 Schettler, William Heymoore, Memphis  
 Schlesinger, Victor Adler, Memphis  
 Schoettle Jr, G Phillip, Memphis  
 Schropp, Kurt Patrick, Memphis  
 Schwerkoske, John F, St Paul, MN  
 -Scott, Stephanie Ann, Knoxville  
 \*Scott III, Benjamin F, Memphis  
 Scott Jr, Daniel J, Memphis



Scott, Edward Patton, Memphis  
 Scott, Hugh, Memphis  
 Scott, Jos Manson, Memphis  
 Scott, Randall Lee, Memphis  
 Scruggs, Jerry L, Memphis  
 \*Seale, James, Memphis  
 -Searcy, Harriett E, Memphis  
 Sebes, Jeno Imre, Memphis  
 Segal, Anthony, Memphis  
 \*Segal, Jack, Memphis  
 \*Segal, Maurice P, Memphis  
 Segal, Robert Henry, Memphis  
 \*Segerson, Edward C, Memphis  
 -Sellers, Angela D, Memphis  
 Sexton, Ray Owen, Memphis  
 Shapiro, Marvin Louis, Memphis  
 -Sharma, Hina N, Birmingham, AL  
 -Shaw, Merri, Memphis  
 Shea III, John Joseph, Memphis  
 Shea Jr, John Jos, Memphis  
 Shea Jr, Martin Coyle, Memphis  
 Shearin, Robt P N, Memphis  
 Shell III, Dan H, Memphis  
 Shelton, Brixey R, Memphis  
 \*Shelton, James R, Heber Springs, AR  
 Shelton, Thomas B, Memphis  
 Shiffman, Stephen Murray, Memphis  
 -Shults, Stephanie Renee, Memphis  
 Shurley III, William R, Memphis  
 Siegel, Barry Ross, Memphis  
 Siegel, Jerome Seymour, Memphis  
 -Sieveking, Nicholas E, Memphis  
 Sievers, Richard E, Memphis  
 Sikes, James C, Memphis  
 -Sills, E Scott, New York, NY  
 Silverman, Michael N, Memphis  
 Simmons, Bryan Paul, Memphis  
 \*Simmons, James C H, Memphis  
 Simpson, Joe Leigh, Memphis  
 Sims, Clifford W, Memphis  
 Sisk, Thomas David, Memphis  
 \*Sissman, Paul R, Memphis  
 Skaggs, Marvin Richard, Memphis  
 \*Skinner, Edward Folland, Memphis  
 Sloas, David Dale, Memphis  
 Slutsky, Avron Abe, Memphis  
 -Smiddy, Joseph C, Memphis  
 Smiley, Linda M, Memphis  
 -Smith, C Christopher, Memphis  
 -Smith, Tamra Lee, Kingston  
 Smith Jr, Vernon I, Memphis  
 Smith, Clyde Gaylon, Memphis  
 Smith, Kirby Lee, Memphis  
 Smith, Stanley L, Memphis  
 Smith, Vincent D, Memphis  
 Smith, W Chapman, Memphis  
 \*Smythe Jr, Frank Ward, Memphis  
 Snider, Charles V, Memphis  
 Snyder, Downen Ervin, Memphis  
 \*Sohn, John J, Memphis  
 Solomito, Vincent Lee, Memphis  
 -Solomon, Dennis R, Memphis  
 Soskel, Norman Terry, Memphis  
 Spears, Hubert Earl, Memphis  
 -Speckhart, Susan Ashley, Memphis  
 Spencer, Judy, Memphis  
 -Spigel, David, Memphis  
 Spiotta Jr, Eugene J, Memphis  
 Spiotta, Eugene Jos, Memphis  
 Spiotta, Larry B, Memphis  
 -Sprouse, Richard, Memphis  
 Stallings, John M, Memphis  
 Stanford, Carl Cooper, Memphis  
 Stanford, James Franklin, Memphis  
 -Stanley, Trelvis L, Memphis  
 Stanley Jr, Thomas V, Memphis  
 \*Stark, Ray Gingles, Memphis  
 Starr, Jason Leonard, Houston, TX  
 Stein, Lee S, Memphis  
 Steinman, Fred, Memphis  
 Stentz, David L, Memphis  
 Stephens, Raj K, Germantown  
 \*Stepp, William Price, Memphis  
 Stern, Thomas Neuton, Memphis  
 \*Stevenson, Cleo Wilson, Memphis  
 \*Stevenson, Edward N, Memphis  
 Stevenson, Robin Malcolm, Memphis  
 -Stewart, Michael Todd, Memphis  
 Stewart, David G, Memphis  
 \*Stewart, Marcus Jefferson, Memphis  
 Stewart, Sherrill Bryce, Memphis  
 Stewart, William C, Memphis  
 Stillwagon, Gary B, Memphis  
 -Stone III, Robert E, Memphis  
 Stovall, Thomas Gregory, Winston-Salem, NC  
 Strasberg, Gary David, Memphis  
 \*Stratton, Henry Thos, Memphis  
 Strock, Sylvia S, Memphis  
 \*Stubblefield, Robt J, Memphis  
 -Studtmann, Karl Eric, Cordova  
 -Sullivan, Rhonda, Memphis  
 Sullivan, Jos Albert, Memphis  
 -Summitt, J Blair, Memphis  
 Summitt, Robert Layman, Memphis  
 Sutherland III, Arthur J, Memphis  
 -Swords Jr, Robert Lee, Memphis  
 \*Sydnor, Elmer W, Memphis  
 Tabor, Owen Britt, Memphis  
 \*Tacket, Hall Sanford, Memphis  
 Tag, Arnold R, Memphis  
 -Takayama, Megumi, Memphis  
 Takegami, Ken Takeshi, Memphis  
 Tanenbaum, Alan H, Memphis  
 Tanenbaum, Mark Harris, Memphis  
 Tanner, Paul Russell, Memphis

-Taylor, Greg M, Memphis  
 Taylor III, Herbert A, Memphis  
 Taylor Jr, William Wood, Memphis  
 Taylor, Edwin Oscar, Memphis  
 Taylor, John Charles, Memphis  
 Taylor, Martha Neumann, Memphis  
 -Teague, Todd A, Memphis  
 Teague, Paul Ford, Parsons  
 -Teaster, David Sean, Memphis  
 -Teer, Patrick B, Memphis  
 Tejwani, Indurani A, Memphis  
 -Templeton, Lucinda, Memphis  
 Templeton, Terry P, Memphis  
 Terhune, Ronald Lytle, Memphis  
 -Thayer, Gilbert M, Memphis  
 Thomas Jr, Lloyd R, Germantown  
 Thomas, Dianna J, Memphis  
 Thomas, Oswald Henry, Bartlett  
 -Thompson, Christopher O'Neal, Memphis  
 -Thompson, Heather, Memphis  
 -Thompson, Keith Shannon, Memphis  
 Thompson, Barry F, Memphis  
 Thompson, Paul Andrew, Memphis  
 Thompson, Terry L, Memphis  
 Thompson, Tommy C, Memphis  
 Thomsen, William B, Memphis  
 -Thorburn, Gerald M, Memphis  
 Threlkeld, Michael Gavin, Memphis  
 Threlkeld, William Cleage, Memphis  
 Tickle, Saml Milton, Memphis  
 Tidd, Margaret Elizabeth, Memphis  
 -Tidwell, Stephen Craig, Jackson  
 -Tinker, Cory Ray, Memphis  
 -Tipps, Jeffrey E, Memphis  
 Tipton, Robert Eugene, Memphis  
 Todd, Margaret Ryan, Memphis  
 Todd, Tanja Lu, Memphis  
 -Tolbert, Audrey Karen, Memphis  
 Tonkin, Allen K, Memphis  
 Tonkin, Ina L D, Memphis  
 Tooms, Robt Edwin, Memphis  
 -Torbett, Lea, Memphis  
 Tosh, John Williams, Memphis  
 Towne, T Carter, Memphis  
 Townsend III, Arthur M, Memphis  
 Trautman, Robert J, Memphis  
 Treadwell III, George H, Memphis  
 Trew, Gary F, Memphis  
 -Trombley, Paul, Germantown  
 Trotter, Michael, Memphis  
 -Troutman, Tammy R, Knoxville  
 -Tsai, Judy, Memphis  
 Tuberville, Audrey Whaley, Memphis  
 -Tucker, Tammie M, Memphis  
 \*Tullis Jr, I Frank, Memphis  
 Tullis, Kenneth Frank, Memphis  
 \*Turley Jr, Hubert King, Memphis  
 \*Turley Jr, John C, Memphis  
 \*Turman, Prentiss A, Memphis  
 Turner, Geo Randolph, Memphis  
 Turner, James E, Germantown  
 Turner, Jan Lewis, Memphis  
 \*Tyler, Louis Edward, Memphis  
 \*Tyler Jr, Austin Roy, Memphis  
 \*Tyson Jr, William T, Memphis  
 -Tysz, Samantha, Memphis  
 Upshaw, James Jerry, Memphis  
 Upshaw, Jefferson Davis, Memphis  
 Usdan, David Aaron, Memphis  
 -Utey, Jennifer E, Memphis  
 Utey, Anne Clark, Memphis  
 \*Vaccaro, Eugene A, Memphis  
 -VanFrank, Timothy D, Memphis  
 -Vandergriff, Joseph V, Memphis  
 -Vargas, Kenneth Eugene, Memphis  
 Varner Jr, Claude, Memphis  
 Varner, James Carroll, Memphis  
 Vasu, Renga I, Memphis  
 -Vaughan, Roderick, Memphis  
 Vera, Santiago R, Memphis  
 Verner, Walter Eugene, Memphis  
 Vernon, Michael Lee, Germantown  
 Vieron, Leonidas Nicholas, Memphis  
 Vincent, John Robt, Memphis  
 -Vinson, John W, Memphis  
 -Virostek, Lisa J, Memphis  
 Voeller, Guy R, Memphis  
 Vogelfanger, Roger B, Memphis  
 Vookles, John Thorn, Memphis  
 Vu, Trong Van, Memphis  
 Wade, W Burke, Memphis  
 Wake, Robert William, Memphis  
 \*Wakham, James Dale, Johnson City  
 -Waldrup, Phillip D, Memphis  
 -Walker, Lottie Ann, Memphis  
 Walker Jr, Parks W, Memphis  
 Walker, Frances Carolyn, Memphis  
 Walker, Robert A, Germantown  
 Walker, William Alan, Memphis  
 \*Walker, William White, Memphis  
 Wallace Jr, Charles Russell, Memphis  
 \*Wallace, James Ashford, Memphis  
 \*Wallace, Peter B, Memphis  
 -Wallstedt, Bruce A, Memphis  
 Walsh, John Thomas, Memphis  
 Walsh, William K, Memphis  
 Walzer, Yair, Memphis  
 Wardlaw, Lee Lyle, Memphis  
 Warner Jr, William Charles, Memphis  
 Warner, Ronnie M, Memphis  
 Warr III, Otis Sumter, Memphis  
 \*Warr, Otis S, Memphis  
 Warren, Jeffrey S, Memphis  
 \*Watkins, William W, Memphis  
 Watridge, Clarence B, Memphis

Watson, Donald C, Memphis  
 Watson, Susan R, Memphis  
 Weatherly, Mark Willard, Memphis  
 -Webb, Michael R, White Pine  
 -Webber, Katherine A, Memphis  
 Webber, Ben Porter, Memphis  
 Weber III, Alvin Julian, Memphis  
 Weber, Bill Carl, Memphis  
 Weeks, Albert E, Memphis  
 Weems, Jos Lell, Memphis  
 Weems, Thomas Doyle, Memphis  
 Weinberg, Joseph A, Germantown  
 Weinstein, Joseph Seth, Memphis  
 Weir III, Alva B, Memphis  
 Weir Jr, Alva Bowen, Memphis  
 -Weirich, Timothy P, Olive Branch, MS  
 -Weiss, Kenneth S, Memphis  
 Weiss, Joseph F, Memphis  
 Wells, Mark S, Memphis  
 Wells, Van Henry, Memphis  
 \*Wennemark, James R, Germantown  
 Wesberry Jr, Jesse Malpass, Memphis  
 Wesberry Sr, Jesse Malpass, Memphis  
 -Wesche, W Allen, Bartlett  
 West, Harold Maxell, Memphis  
 West, James M, Memphis  
 Westmoreland, Daniel K, Memphis  
 -Wheeler, Laurie C, Memphis  
 -Whitaker, Toni M, Memphis  
 -Whitby, R Scott, Memphis  
 -White, Beverly Suzanne, Memphis  
 -White, Jennifer Claire, Memphis  
 White III, Thomas Jefferson, Memphis  
 White Jr, James Harold, Memphis  
 White, Chas Edward, Memphis  
 White, Frank Louis, Memphis  
 \*White, William Guerin, Memphis  
 -Whitehead, Michael Alan, Memphis  
 Whitehead, William Jerry, Germantown  
 Whitlock, Lawrence Wayne, Memphis  
 \*Wiener, Isadore David, Memphis  
 Wiener, Robt Alan, Memphis  
 Wilcox, Allen Brian, Memphis  
 Wilder, William Wiggins, Memphis  
 Wilhite, Joe Lynn, Memphis  
 -Wilkinson, Kimberly Sue, Memphis  
 Wilkinson, Ephriam Bailey, Memphis  
 -Williams, Mark A, Memphis  
 -Williams, Tribby E, Memphis  
 Williams, Beverly D, Memphis  
 Williams, Deborah Lynn, Memphis  
 \*Williams, Horace Glenn, Memphis  
 Williams, Hugh Hernes, Germantown  
 Williams, Paul Herbert, Memphis  
 Wills, Gordon Lee, Memphis  
 Wilson, Arthur J, Memphis  
 Wilson, Donald Bruce, Memphis  
 \*Wilson, Harry Williamson, Memphis  
 \*Wilson, James E, Memphis  
 Wilson, John McCullough, Memphis  
 \*Wilson, John McQuiston, Memphis  
 Wilson, Raymond Edward, Cordova  
 Winer Muram, Helen T, Memphis  
 -Winkelmann, Julie Anne, Memphis  
 -Wisniewski, Joseph M, Chattanooga  
 Witherington, John M, Memphis  
 Witherspoon Jr, Frank G, Memphis  
 Wolf, Rodney Yale, Memphis  
 -Womack, Catherine, Memphis  
 -Wood, Kenneth W, Tullahoma  
 Wood II, George W, Memphis  
 \*Wood, Matthew W, Memphis  
 Wood, Thomas Oval, Memphis  
 -Woodall, Cynthia C, Memphis  
 Woodall Jr, Jesse C, Memphis  
 Woodall, Charles Jackson, Memphis  
 Woodall, Melanie L, Cordova  
 Woodbury, Geo Robt, Memphis  
 Woodbury, Linda L Plzak, Memphis  
 -Woodfield, Shannon Lee, Memphis  
 \*Woolley, Clifton Ward, Memphis  
 Wooten, Richard Lindsey, Memphis  
 Wooten, Robert Strode, Memphis  
 \*Workman Jr, Claude H, Marietta, GA  
 \*Worrell, Jerry Lewis, Memphis  
 Wortham III, George F, Memphis  
 Worthington, Julian Mack, Memphis  
 \*Wrenn Jr, Earle L, Memphis  
 -Wright, Frank D, Decatur, GA  
 Wright II, Phillip E, Memphis  
 Wright Jr, Leonard D, Memphis  
 Wright, Dana John, Memphis  
 Wright, Sheryl Jones, Memphis  
 Wruble, Lawrence David, Memphis  
 \*Wurzburg, Henry, Memphis  
 Wyler, Allen R, Memphis  
 -Yarber, Robert H, Memphis  
 Yarbrough, Robert R, Memphis  
 \*Yates, Claude Frank, Memphis  
 Yates, Linda Kay, Cordova  
 Yeates, Laura, Memphis  
 \*Young, Jack G, Memphis  
 Young, Jean Anne, Memphis  
 Young, Mark S, Memphis  
 Younger, Carl Thomas, Memphis  
 Younis, Ramzi Tamer, Memphis  
 Yukon, Gordon, Memphis  
 -Zachary, William Henry, Memphis  
 Zanella Jr, John, Memphis  
 Zanone, Michael T, Germantown

# MONROE COUNTY MEDICAL SOCIETY

Allen, James Lester, Sweetwater  
 Carpenter, Douglas R, Madisonville



DeFreitas, Eric Allan, Sweetwater  
 Evans, Thomas S, Sweetwater  
 Gazewood, John D, Madisonville  
 Gettinger, Joshua S, Madisonville  
 Harrison, Celia Huddleston, Philadelphia  
 Harvey, William L, Sweetwater  
 Hays, Robt Danl, Cleveland  
 \*Hyman Jr, Orren Williams, Sweetwater  
 Levin, Barbara Ann, Madisonville  
 Lowry, Frank H, Madisonville  
 Ness, James W, Tellico Plains  
 Snyder, Edward D, Sweetwater  
 Villanueva, Ramon, Sweetwater  
 Zee, Paulus, Sweetwater

## MONTGOMERY COUNTY MEDICAL SOCIETY

Anderson, Paulette D, Clarksville  
 \*Atkinson, Edward R, Clarksville  
 Baggett, Henry W, Clarksville  
 Beazley, William Cooper, Clarksville  
 Bellenger, James F, Clarksville  
 Bendt, Robert Richard, Clarksville  
 Boyd, Alton Reuther, Clarksville  
 Bradley, Joel F, Clarksville  
 Brandon, Gilbert T, Clarksville  
 \*Brewer, Carlos B, Clarksville  
 Busbee III, Greer Albert, Clarksville  
 Bush, Joel Gregory, Clarksville  
 Butler, Thomas W, Clarksville  
 Carrigan, Vernon M, Clarksville  
 Cha, Paul Sangyong, Clarksville  
 Cole, Herbert Rowland, Clarksville  
 Crawford, Donald A, Clarksville  
 Creekmore, Harry S, Clarksville  
 Cunningham Jr, Thomas M, Clarksville  
 Deal, Virgil T, Clarksville  
 \*Doane Jr, Samuel N, Clarksville  
 Doty Jr, Robert D, Chapmansboro  
 Durrett Jr, Dawson W, Clarksville  
 Farrar, James Thos, Clarksville  
 Faust, Larry M, Clarksville  
 Ferraraccio, Blaise E, Clarksville  
 Futrell, Danny W, Clarksville  
 Glassell, Edwin C, Clarksville  
 Grabenstein, Tom G, Clarksville  
 Grabenstein, William P, Clarksville  
 \*Griffin, V H, Nashville  
 Gullett, David Laird, Clarksville  
 Hall, Billy T, Clarksville  
 Hall, Michael Stanley, Clarksville  
 Hong, Doug Un, Clarksville  
 Hooker, Michael D, Clarksville  
 Hudson III, William D, Clarksville  
 Hudson, Robert W, Clarksville  
 Iglehart, Bryan T, Clarksville  
 Jordan, Edwin Constantine, Clarksville  
 Kennedy, Howard R, Clarksville  
 Kent, Stephen W, Clarksville  
 Koehn Jr, Robt C, Clarksville  
 Kurita, George I, Clarksville  
 Larkins, Gary L, Clarksville  
 Ledbetter, Buford B, Clarksville  
 Lee, Robt Henry, Dover  
 Lemoine, Fritz F, Clarksville  
 Lett, James C, Knoxville  
 Ligon, Douglas Wister, Erin  
 Limbaugh Jr, James W, Clarksville  
 Lind, Roger Charles, Clarksville  
 Lowe Jr, Reginald S, Clarksville  
 Lowy, Sam J, Clarksville  
 Luton, Oaklus Saml, Clarksville  
 \*Lyle, William Green, Clarksville  
 Martin, Daniel Ernest, Erin  
 McCampbell, Frank G, Clarksville  
 McLaughlin, Steven G, Clarksville  
 Miles Jr, Joseph Wm, Clarksville  
 Miller, David Stuart, Clarksville  
 Mitchum, Albert Jackson, Clarksville  
 Moessner, Harold F, Clarksville  
 Montgomery, Tony Johnson, Clarksville  
 Moore, W R, Clarksville  
 Peacher, Terry Gene, Clarksville  
 Pedigo Jr, W Joel, Clarksville  
 Perales, Angel U, Dickson  
 Peterson, Keith D, Clarksville  
 Porter, Douglas Dwight, Clarksville  
 Prine Jr, William Wesley, Clarksville  
 Resta, Bart J, Clarksville  
 Rice, Robin L, Clarksville  
 Richardson, Donald Ray, Clarksville  
 Roads, Timothy R, Clarksville  
 \*Ross, John W, Clarksville  
 Saleh, Adel S, Clarksville  
 Salyers, Steve G, Clarksville  
 Sauer, Mark A, Clarksville  
 Setzkorn, Ronald Karl, Clarksville  
 Siler, Rita Anne, Clarksville  
 Silvey, Gary Lynn, Clarksville  
 Smith, James Roy, Clarksville  
 Steely, William Morris, Clarksville  
 Vann, Harold Francis, Clarksville  
 Vermillion, R J, Clarksville  
 Walker, Joe R, Clarksville  
 \*Wall Jr, William H, Clarksville  
 Williams, David B, Clarksville  
 Wilson, Frank, Clarksville  
 Wright Jr, John Pay, Clarksville

## NASHVILLE ACADEMY OF MEDICINE DAVIDSON COUNTY MEDICAL SOCIETY

Abbott, Julie Lunsford, Brentwood  
 Abisellian, Georgina A, Nashville  
 Acosta, Estrella P, Madison  
 Acosta, Paulo C, Madison  
 Acree, Maurice Mason, Nashville  
 \*Adams, Crawford, Duck Key, FL  
 Addlestone, Ronald B, Nashville  
 Adkins, Robt Benton, Nashville  
 Adkins, Royce Terrell, Goodlettsville  
 Adkins, Thomas G, Nashville  
 Agbunag, Arnulfo Abat, Madison  
 Akin, Gordon Clay, Nashville  
 Akin, Judith Blevins, Nashville  
 \*Alcantara, Ildefonso A, Nashville  
 Alexander Jr, Clyde W, Nashville  
 Alexander, Dave A, Nashville  
 Alexander, William Frederick, Nashville  
 Alfery, David D, Nashville  
 Alford Jr, William Cutter, Nashville  
 Alford, Robert H, Nashville  
 \*Allen Jr, Joseph H, Nashville  
 Allen Jr, Newton Perkins, Nashville  
 Allen, Terry Reynolds, Nashville  
 Allen, Vaughan Arthur, Nashville  
 Allen, Verne Elwood, Nashville  
 Alley Jr, J Clyde, Nashville  
 Allison Jr, Fred, Nashville  
 Alper, Benjamin J, Nashville  
 Altenbern Jr, Douglas Carlton, Nashville  
 Altenbern, Darrington Phillips, Nashville  
 Ammarell, Robert L, Nashville  
 Anand, Vinita, Nashville  
 \*Anderson Jr, Arthur R, Nashville  
 Anderson Jr, Edwin B, Nashville  
 Anderson Jr, James E, Nashville  
 \*Anderson Jr, James S, Nashville  
 Anderson, Allen F, Nashville  
 Anderson, Edward Eugene, Nashville  
 \*Anderson, Edwin B, Nashville  
 \*Anderson, Elbridge E, Nashville  
 \*Anderson, H R, Nashville  
 Anderson, John Eugene, Nashville  
 Anderson, William Clyde, Nashville  
 Anderson, William Joseph, Nashville  
 Arendale Jr, Charles R, Nashville  
 Arendall II, Rex E, Nashville  
 Arnett, Darrell G, Nashville  
 Arnold, Edward Stanley, Nashville  
 Arnold, Fredrick S, Nashville  
 Arnold, Larry Totty, Nashville  
 Arrowsmith, Peter Noel, Nashville  
 Asher, Harvey, Nashville  
 Asher, Jordan Ross, Nashville  
 Atkinson III, Ralph C, Nashville  
 Austin, John Clayton, Nashville  
 Avant, Geo Ray, Nashville  
 Averbuch, Mark Stephen, Nashville  
 Avery, James Kelley, Nashville  
 Aylor, Sarah Brown, Nashville  
 Baer, Harry, Nashville  
 Bailey, Allan H, Nashville  
 Baker, Jack R, Nashville  
 Baker, Thurman Dee, Nashville  
 Baldwin, James Marvin, Ashland City  
 Ballinger, Jeanne F, Nashville  
 Ban, Thomas A, Nashville  
 \*Bandy, Preston H, Nashville  
 Barnes Jr, Maurice C, Nashville  
 Barnett, Donald R, Nashville  
 Barnett, Patrick A, Nashville  
 Barnett, Paul Harold, Nashville  
 Barnett, Robt Burton, Nashville  
 Barton, Ben R, Nashville  
 Barton, David, Nashville  
 \*Bass, Allan Delmage, Nashville  
 Batalden, Paul B, Nashville  
 Batchelor, E Dale, Nashville  
 Batson, Jack Miller, Nashville  
 \*Batson, Randolph, Troy, AL  
 Baucom, William E, Nashville  
 \*Bayer, D Scott, Nashville  
 \*Beazley, Luthur, Nashville  
 Beck, Charles Bernard, Madison  
 Beck, Larson Dale, Madison  
 \*Beckwith, Merton M, Augusta, GA  
 \*Begtrup, Robert O, Nashville  
 Belden, Richard A, Nashville  
 Bell, Robt Le Roy, Nashville  
 Bender Jr, Harvey W, Nashville  
 Bennie, Jeffrey Barker, Nashville  
 Benning, Thomas R, Nashville  
 Benson Jr, Ralph C, Nashville  
 \*Benson, George N, Nashville  
 \*Benz, Edmund Woodward, Nashville  
 Berger, Brian Lee, Nashville  
 Berger, Kurt Vincent, Nashville  
 Berklacick, Frank Martin, Nashville  
 Berman, M Lawrence, Nashville  
 \*Bernard, Louis J, Nashville  
 Bernard, Stanley, Nashville  
 Berrie, Warren R, Nashville  
 Berry, Jeoffrey, Nashville  
 Besharian, Charles M, Nashville  
 Best, Tony P, Nashville  
 \*Beveridge, John H, Nashville  
 Bienvenu, Gary Louis, Brentwood  
 Bihl-Miranda, Patricia M, Nashville  
 \*Billings Jr, Frederic T, Nashville  
 Binkley Jr, William Joseph, Madison  
 Birdwell, Ben Jason, Nashville  
 Bishop Jr, Eugene L, Nashville  
 \*Bishop, Lindsay K, Nashville  
 Bishop, Michael Robt, Nashville  
 \*Bistowish Jr, Joseph M, Nashville  
 \*Black Jr, James N, Tenaflly, NJ  
 Blake, Maryanne, Nashville  
 Blanton, Donald McLain, Nashville  
 Bodner, Stanley Jacob, Hermitage  
 Boehm, Frank Henry, Nashville  
 Bolds, John Michael, Nashville  
 Bolin, Marion G, Nashville  
 Bolus Jr, David Norman, Nashville  
 Bomboy Jr, James D, Nashville  
 Bonau, Roger Anthony, Nashville  
 Bond III, John Benjamin, Nashville  
 Bond, Arthur Gernt, Franklin  
 Bond, John Benj, Nashville  
 Bone, Robert Carver, Lebanon  
 Bonner, Kevin Joseph, Brentwood  
 Bookman, James Andrew, Madison  
 Booth Jr, Glenn H, Nashville  
 Bottomy, Michael Bruce, Nashville  
 Bounds Jr, Geo Wm, Nashville  
 Bowers, Patricia Lynn, Nashville  
 -Boyles, Janet K, Nashville  
 Brackin Jr, Henry B, Nashville  
 Bradburn, Dennis Ogden, Bowling Green, KY  
 \*Bradley, Cloyce F, Nashville  
 Brakefield, James Marion, Nashville  
 Brandes, Jan L, Nashville  
 Brannon, C Travis, Nashville  
 Brantley, Barrett Duane, Nashville  
 Braren, H Victor, Nashville  
 Breinig, John Boyers, Nashville  
 Breiten, Leslie B, Nashville  
 Brennan, Rhonda Kay, Nashville  
 Bressman, Phillip L, Nashville  
 Breuer, Anthony Carl, Nashville  
 Brigham, Kenneth L, Nashville  
 Brimmer II, Robert A, Nashville  
 Brin, Edward Neal, Nashville  
 Brock III, John W, Nashville  
 Brodows, Robert G, Brentwood  
 Brothers, John Cunningham, Nashville  
 Brown Jr, Walter Edward, Spring Hill  
 Brown Jr, Walter U, Nashville  
 Brown, Douglas H, Nashville  
 Brown, Kermit R, Nashville  
 Brown, Mary Jane, Brentwood  
 Brown, Pamela E, Goodlettsville  
 Brown, Phillip Pendleton, Nashville  
 Browne, Edward W, Nashville  
 Bruner, Joseph Paul, Nashville  
 Bruno III, John, Nashville  
 \*Bryan, John T, Nashville  
 Bryant, James David, Nashville  
 Bryant, Susan H, Nashville  
 \*Buchanan Jr, Robert Norman, Nashville  
 Buchanan, Richard Durr, Brentwood  
 Buckspan, Glenn S, Nashville  
 Bueno, Reuben A, Nashville  
 Burbank, Sally Willard, Nashville  
 Burch Jr, Roy Perry, Brentwood  
 \*Burd, Jos G, Nashville  
 Burkhalter, Michael Terry, Nashville  
 Burks, Helen C, Hendersonville  
 Burnes, James Edmond, Madison  
 Burnett, Lonnie S, Nashville  
 Burns, Gerald Robt, Nashville  
 Burrus, Czo Robt, Nashville  
 \*Burrus, Roger Byron, Nashville  
 Burwell, Bron, Old Hickory  
 Byrd III, Benjamin F, Nashville  
 \*Byrd Jr, Benjamin F, Nashville  
 Byrd, J W Thomas, Nashville  
 Cadena-Cucta, Guillermo, Nashville  
 Caldwell Jr, Benjamin H, Nashville  
 Calhoun, Calvin Lee, Nashville  
 Callaway, James J, Nashville  
 Callaway, Michael Denney, Nashville  
 Callaway, Thomas Haile, Nashville  
 Campa III, John A, Nashville  
 Campbell, Susan B, Nashville  
 Campbell, Thomas W, Nashville  
 Campbell, W Barton, Nashville  
 Canale Jr, Daniel D, Nashville  
 \*Cannon II, Richard O, Nashville  
 Cannon Jr, Charles Grady, Nashville  
 Canter, Jeffrey Alan, Nashville  
 Cantrell, Stephen B, Nashville  
 \*Card, Wm Judson, Madison  
 Carlsen, Andrew B, Nashville  
 Carlson, Brian Richard, Mt Juliet  
 Carney Jr, Sam W, Madison  
 Carpenter Jr, Geo Kenyon, Nashville  
 Carr, Mark Barham, Nashville  
 Carter, Jeffrey B, Nashville  
 \*Carter, Oscar Willis, Nashville  
 Cartwright, Pete S, Nashville  
 Cassell, Norman M, Nashville  
 Castelnuovo-Tedesco, P, Nashville  
 Cate, Ronald C, Nashville  
 Cato, James Robert, Nashville  
 \*Cazort, Ralph J, Nashville  
 \*Chalfant, Robt L, Nashville  
 Chambers, Jill F, Nashville  
 Chang, Pong Moon, Nashville  
 Chapman, John Edmon, Nashville  
 Charles, Philip David, Nashville  
 Chazen, Eric Martin, Nashville  
 Cheij, Abraham Pacha, Nashville  
 Chern, Andrew Lawson, Nashville  
 Chisolm Jr, Joe M, Nashville  
 Christenberry, Robert H, Nashville  
 Christofersen, Mark R, Nashville  
 Classen, Jeannine Archer, Madison



Classen, Kenneth Leon, Madison  
 Clendenin III, Robert, Nashville  
 Clinton, Mary E, Nashville  
 \*Cobb Jr, Cully A, Nashville  
 Cochran, Robt Taylor, Nashville  
 Cohen, Alan Gary, Nashville  
 Coker, Wesley Louis, Nashville  
 Coles III, John H, Nashville  
 Collins, Robert S, Madison  
 Coltharp, William H, Nashville  
 Concepcion, Raoul S, Nashville  
 Connor, Dan E, Nashville  
 Conrad, James Francis, Nashville  
 Cooke, Geo Edward, Nashville  
 Cooper, Robert S, Nashville  
 Coopwood, William Eugene, Texarkana, TX  
 Corbin Jr, Charles, Nashville  
 Corney, Robt Tyler, Nashville  
 \*Cothren, Frederic B, Chattanooga  
 Cothren, Jackson Danl, Nashville  
 Cotton Jr, Robert Bell, Nashville  
 \*Couch Jr, Orrie A, Nashville  
 Couden, Vincent Robt, Nashville  
 Coulam, Craig M, Nashville  
 Cowan, Richard H, Tullahoma  
 Cowden, Charles Marshall, Hendersonville  
 \*Cowden, Frederic Eugene, Nashville  
 Craft, Lisa T, Nashville  
 \*Crafton, George B, Nashville  
 Crafton, George West, Madison  
 Crane, Jos Michael, Madison  
 \*Crane, Paul Shields, Nashville  
 Crawford Jr, Walter Morgan, Nashville  
 Crenshaw, Marshall H, Nashville  
 Crenshaw, William Bryant, Nashville  
 Crook Jr, Jerrall Paul, Nashville  
 Crook, Angus M G, Nashville  
 Crook, Jerrall Paul, Nashville  
 Cross, David L, Nashville  
 Crumbo, Donald S, Nashville  
 Cushman, Arthur Robt, Madison  
 D'Amico, Stephen J, Nashville  
 Dalton, John Charles, Nashville  
 Daniell, James F, Nashville  
 Dao, Anh Huu, Nashville  
 \*Darby, William Jefferson, Thompson Station  
 Dash, Lamarr A, Franklin  
 Daugherty, Paul S, Madison  
 \*Daugherty, Philip V, Nashville  
 Davis Arnold, Evelyn J, Brentwood  
 Davis Jr, Thomas Joel, Nashville  
 Davis, Ben Weldon, Nashville  
 Davis, Carla Suzanne M, Nashville  
 Davis, Geo William, Nashville  
 Davis, Ivan R, Nashville  
 Davis, J Lucian, Nashville  
 \*Davis, Michael David, Nashville  
 Davis, Richard John, Nashville  
 \*Davis, Theodore W, Nashville  
 Davis, William Gray, Madison  
 Day, T Wayne, Nashville  
 DeLozier III, Joseph B, Nashville  
 Deal, Roy W, Nashville  
 Deason, Deborah R, Nashville  
 Deaton, Mark Arey, Nashville  
 Decker, Michael Donahue, Nashville  
 \*Delvaux Jr, Thomas C, Nashville  
 Dement, Samuel Houston, Brentwood  
 Dillard Jr, Saml Henry, Brentwood  
 Dittus, Janet L, Franklin  
 Dixon, Bryce William, Nashville  
 Doak, William Melville, Donelson  
 Dodd, Robert T, Nashville  
 Doering, Tracey Ellen, Nashville  
 \*Donnell, Mark L, Madison  
 Donovan, Kevin L, Nashville  
 Dopp, Alan C, Nashville  
 Dorsey, Douglas Russell, Nashville  
 \*Doss, W Gordon, Hendersonville  
 Doster Jr, Robert T, Nashville  
 Dow III, Frederick Thompson, Nashville  
 Downey, Willima Lee, Nashville  
 \*Downs, Howard S, Hendersonville  
 Doyle, Deborah R, Nashville  
 Dozier Jr, J Emmett, Nashville  
 \*Driver Jr, L Rowe, Nashville  
 \*Dubuisson, Ray L, Nashville  
 Dudley, B Stephens, Nashville  
 Duffy, Karen Barr, Madison  
 Dunbar, Laura L, Nashville  
 Duncan, Gary Wm, Nashville  
 \*Duncan, Geo E, Nashville  
 Duncan, Thomas C, Nashville  
 Dundon, Mary Catherine, Goodlettsville  
 Dunkerley Jr, Robt C, Nashville  
 Dunn Jr, B Rentz, Nashville  
 Dunn, Geo Dewey, Nashville  
 Dutton, William Patterson, Nashville  
 Dyer, David N, Nashville  
 Dyer, Eric L, Nashville  
 Earthman, Webb Johnston, Nashville  
 Ebert, Michael H, Nashville  
 Eckstein, Charles W, Nashville  
 Edwards Jr, William H, Nashville  
 Edwards, Doran Devon, Erin  
 Edwards, Joe Michael, Nashville  
 Edwards, Michael Ernest, Brentwood  
 Edwards, Robt Harvey, Nashville  
 Edwards Sr, William H, Nashville  
 Eisert, Donald Ramon, Nashville  
 Elam III, Roy Oscar, Nashville  
 Elam, Lloyd Chas, Nashville  
 Elliott, James H, Nashville  
 Ellis, Darrel L, Nashville  
 \*Ellis, James W, Nashville  
 Ellis, Michael C, Madison  
 Elrod, Burton F, Nashville  
 Elson, Melvin Leslie, Nashville  
 Emerson, Clifton W, Nashville  
 Emerson, Edwin Boyette, Nashville  
 Emfinger, C Wesley, Nashville  
 Ensalada, Leon D, Nashville  
 Entman, Stephen S, Nashville  
 Escobar, Alfonso, Nashville  
 Eskind, Irwin Bernard, Nashville  
 Eskind, Jeffery Bein, Nashville  
 Eskind, Steven J, Nashville  
 Estes, Robert L, Nashville  
 Estopinal, Marcel R, Nashville  
 \*Evans, Hillis Floren, Madison  
 Evans, Janet E, Nashville  
 Ewers, E William, Nashville  
 \*Eyler, Don L, Salem, AL  
 Ezell, Gilbert D, Nashville  
 Ezell, Meredith A, Nashville  
 Ezell, Roy Clay, Nashville  
 Faber, Robt Branch, Nashville  
 Falk, Randall M, Nashville  
 Farrar, William Taylor, Nashville  
 Fassler, Cheryl Ann, Nashville  
 \*Faulk Jr, Wallace H, Nashville  
 Faulkner, Charles Taylor, Nashville  
 Faulkner, Lee Ann, Nashville  
 Faust, Thomas Wilson, Nashville  
 Felch, James W, Franklin  
 Felts, Stephen Karey, Nashville  
 Feman, Stephen S, Nashville  
 Fenichel, Gerald Mervin, Nashville  
 Ferguson, Harold Austin, Nashville  
 Fields, James P, Nashville  
 Fields, John Pershing, Nashville  
 Finch, William Tyree, Nashville  
 Finke, Frederick Leroy, Nashville  
 \*Fishbein, Joseph H, Nashville  
 Fisher, Benjamin, Nashville  
 Fisher, Jack, Nashville  
 Fleet Jr, William F, Goodlettsville  
 Fleischer, Arthur C, Nashville  
 Fleming Jr, James H, Nashville  
 Fleming Jr, Ross, Nashville  
 Fleming, Philip Edward, Nashville  
 Fletcher, Christopher W, Nashville  
 Fletcher, Suzanne M, Brentwood  
 Flexner, John Morris, Nashville  
 Flora, Mark Dudley, Nashville  
 Foley, Gerald J, Nashville  
 Foose, Jeanne Marie, Nashville  
 Ford, Dianne J, Madison  
 \*Foreman, Howard R, Nashville  
 Foster, Henry Wendell, Nashville  
 Foster, Nelson Ray, Nashville  
 Fowinkle, Eugene Wesley, Nashville  
 \*Fowler, S Benjamin, Nashville  
 Fox, Richard Allen, Nashville  
 Francis, Robt Stanley, Nashville  
 -Franklin, Alan J, Nashville  
 Franklin, Jerry B, Nashville  
 Frederiksen, Rand Terrell, Nashville  
 Freeman, Mark Pearce, Brentwood  
 Freeman, Rufus Jack, Nashville  
 Frenchman, Khushru H, Hendersonville  
 Frexes-Steed, Maria E, Nashville  
 Frey, Walter Willis, Nashville  
 Friddell, Thomas James, Nashville  
 Friedman, Wallace L, Nashville  
 Frist Jr, John C, Nashville  
 Frist, Robt Armistead, Nashville  
 Frist, William Harrison, Nashville  
 \*Frist Sr, Thomas F, Nashville  
 Fry, James Alan, Nashville  
 Fullerton, Randy Curtis, Nashville  
 Furlow, William Loomis, Nashville  
 Gaines, Donald Lee, Nashville  
 Gaither, Douglas Hamilton, Nashville  
 \*Gant, Julian C, Loma Linda, CA  
 \*Gardner, Charles Kurtin, Nashville  
 Garman, Richard W, Brentwood  
 \*Garrett, Sam Young, Nashville  
 \*Gaskins, Fay M, Nashville  
 \*Gaston, Robert B, Donelson  
 Gaume, James Alan, Nashville  
 Gavigan, William Mitchell, Nashville  
 Gaw, David Wisdom, Nashville  
 \*Gaw, William Richard, Nashville  
 Geddie, Danl Clark, Nashville  
 Genca, Erol, Nashville  
 Gentry, Harold Leffel, Madison  
 German, Deborah C, Nashville  
 \*Gessler, Carl Newton, Nashville  
 \*Ghosh, Sudhir C, Brentwood  
 Gibson, John Ragan, Nashville  
 Gill, Charles McClelland, Nashville  
 Gilmer, Ronald K, Nashville  
 Ginn, H Earl, Nashville  
 Givens, Dingess M, Nashville  
 Glascock, Frank B, Nashville  
 Glascock, Michael E, Nashville  
 Glassford Jr, David M, Nashville  
 Glassman, Armand B, Nashville  
 Glazer, Mark D, Nashville  
 Glick, Alan Douglas, Nashville  
 \*Glover Jr, John P, Nashville  
 Gluck Jr, Francis W, Nashville  
 \*Gobbell Jr, Walter G, Nashville  
 Gold, Michael H, Nashville  
 Goldfarb, Mark S, Nashville  
 Goldner Jr, Fred, Nashville  
 \*Gomez, Paul Chas, Nashville  
 Goodin, Julia C, Nashville  
 Goodman, Bruce Randolph, Nashville  
 Goodman, William M, Madison  
 Gore, Johnny Elmo, Brentwood  
 Gorstein, Fred, Nashville  
 Gotterer, Gerald S, Nashville  
 Gowda, Hiranya C K, Nashville  
 Graber, Alan Lee, Nashville  
 \*Graham Jr, Louis S, Nashville  
 Graham Jr, Robert P, Nashville  
 Graham, Thomas P, Nashville  
 Granda, Antonio Medardo, Nashville  
 Grant, Burton Paine, Nashville  
 Graves Jr, Herschel A, Nashville  
 Gray, George F, Nashville  
 Gray, Roland William, Nashville  
 Greco, Frank Anthony, Nashville  
 Green Jr, Paul A, Nashville  
 Green, James Donald, Nashville  
 \*Green, Louis D, Brentwood  
 Green, Neil Edward, Nashville  
 Greenbaum, Ralph Martin, Nashville  
 Greer Jr, Clifton E, Nashville  
 Greer, John Pettry, Nashville  
 Gregory II, James P, Nashville  
 Gregory Jr, Marvin Geer, Nashville  
 Gregory, David Wilson, Nashville  
 Gremillion Jr, Daniel E, Nashville  
 Griffin, John Jos, Nashville  
 Grinde, Stephen E, Nashville  
 Griscom, John Hooper, Nashville  
 Groos, Erich Bryan, Nashville  
 \*Grossman, Laurence A, Nashville  
 \*Grossman, Milton, Nashville  
 Grove, R Barry, Brentwood  
 Growdon Jr, James Harold, Nashville  
 Guillermin, John Philip, Hermitage  
 Gunn, Michael G, Nashville  
 Gurley, Larry D, Nashville  
 Gutow, Gary Saml, Nashville  
 Gutow, Richard Fineman, Nashville  
 -Guy, Sloane, Philadelphia, PA  
 Hagan, Geo Bryant, Madison  
 Hagan, Keith W, Nashville  
 Hagan, Kevin F, Nashville  
 Hagenau, Curtis James, Nashville  
 \*Haines Jr, Charles Edgar, Nashville  
 Hainsworth, John D, Nashville  
 Haley Jr, Robt Leo, Madison  
 Hall Jr, Wallace Howard, Nashville  
 Hall, Hugh David, Nashville  
 \*Haltom, Thomas Branson, Nashville  
 Hamburger, Marcelle Robt, Nashville  
 Hamburger, Norman J, Brentwood  
 Hamilton, James Richard, Nashville  
 \*Hamilton, William M, Highlands, NC  
 \*Hammonds, Roy Glenn, Nashville  
 Hampf, Carl R, Nashville  
 Hancock, Kenneth Charles, Ft Worth, TX  
 Handte, Robert E, Brentwood  
 Hanes, Thomas Eugene, Madison  
 \*Hansen, Axel Carl, Nashville  
 Hanson, Anne V E, Brentwood  
 Hardin, Robert Allen, Nashville  
 Hargreaves, Ray, Nashville  
 Harper, Marion Cal, Nashville  
 \*Harris, Jackson, Nashville  
 Harris, Jeffrey S, Nashville  
 Harris, Perry Felton, Nashville  
 Hart, James Robert, Nashville  
 Hartness, William Owen, Nashville  
 \*Harvey, Alexander Earle, Nashville  
 Harwell Jr, William Beasley, Nashville  
 \*Harwell, Aubrey B, Nashville  
 Hasty, Norman Donald, Nashville  
 Hausmann, Jan M, Nashville  
 Hawkins, Rowland Speck, Nashville  
 \*Hayes, James T, Nashville  
 Haynes Jr, J Brevard, Nashville  
 Haynes, James Hugh, Nashville  
 \*Haynie, H Campbell, Franklin  
 Hays, James Wm, Nashville  
 Hays, Michael W, Nashville  
 Heflin, A Clyde, Nashville  
 Heim, Craig Reed, Nashville  
 Heitz, Julian C, Nashville  
 Helderman, J Harold, Nashville  
 Heller, Richard Moss, Nashville  
 \*Helme, James B, Nashville  
 Henderson, James Porter, Nashville  
 Henderson, Robert R, Nashville  
 Henry, Douglas C, Nashville  
 Henson, Alan Stuart, Hendersonville  
 Herring Jr, Robert William, Brentwood  
 \*Herrington Jr, John L, Nashville  
 \*Herzfeld, John G, Nashville  
 Hester, Ray Willis, Nashville  
 Heyman, Stephen Joel, Nashville  
 High, James Marshall, Madison  
 Hightower, Danl Russell, Nashville  
 Hill, David Edwin, Nashville  
 Hill, George Alan, Nashville  
 Hill, Warren Thos, Hendersonville  
 Hill, Washington Clark, Nashville  
 Hill, William Harold, Madison  
 \*Hillard, Irving Ringo, Nashville  
 \*Hills, Edward Rudolph, Nashville  
 Hines, Stephen L, Nashville  
 Hinton, Alice A, Nashville  
 Hirsch, M Bruce, Nashville  
 Hirschberg, Charles Snyder, Nashville  
 Hitchman, James Kenneth, Nashville  
 \*Hobby, Charlie Joe, Nashville  
 Holcomb III, George W, Nashville  
 \*Holcomb Jr, Geo W, Nashville  
 \*Hollender, Marc Hale, Nashville  
 Holliday, Hugh Douglas, Nashville



Hollinger, Bruce, Nashville  
Holmes III, Geo Landis, Nashville  
Holzen, Thomas W, Nashville  
Hood, Rob Reid, Nashville  
Hoos, Richard T, Nashville  
Hopp, Stanley G, Nashville  
Horn, Robt Gordon, Nashville  
Horowitz, David Harvey, Nashville  
Horton Jr, Frederick T, Nashville  
\*Horton, Bennett Franklin, Knoxville  
Houston, Mark Clarence, Nashville  
Howell Jr, Everette Irl, Nashville  
Howerton, Henry Clayton, Nashville  
Howerton, Richard Allen, Nashville  
Hsueh, Yerng Terng, Nashville  
Huber, Thomas J, Hendersonville  
\*Huddleston, Charles H, Nashville  
\*Hudgins, James M, Nashville  
Huff, John Gregory, Nashville  
Humphrey, Stephen P, Madison  
Humphreys, Jerry Kay, Hermitage  
\*Hunt, Jerry Cheek, Madison  
Hurt, Jos Edward, Nashville  
Huston, Joseph W, Nashville  
\*Hutton Jr, Vernon, Nashville  
Hutton, Robert M, Nashville  
Hyman, Steve A, Nashville  
Hymes, Jeffrey Lawrence, Nashville  
Ikard, Robt Winston, Nashville  
Isenhour Jr, Albert P, Nashville  
\*Ivie, Jos McKinney, Nashville  
Jack, Robert Allen, Nashville  
Jackson, C Gary, Nashville  
Jackson, Roger Theodore, Nashville  
Jacobi, Susan M, Nashville  
Jacobs, Jos Kenneth, Nashville  
Jacobson, Ned R, Nashville  
Jacokes, Mark Warner, Nashville  
Jamieson, Robert C, Nashville  
Jamison Jr, Dale H, Nashville  
Jao, Henry C, Madison  
Jarvis, David Alan, Nashville  
Jennings, Henry S, Nashville  
Jerkins, Gary W, Nashville  
John Jr, James Thos, Nashville  
Johns, Karla J, Nashville  
Johnson Jr, Benjamin Wilbur, Nashville  
\*Johnson Jr, Ira T, Nashville  
Johnson, David Horton, Nashville  
Johnson, Harry Keith, Nashville  
Johnson, James Wm, Nashville  
Johnson, John Settle, Nashville  
Johnson, Mark Lanier, Madison  
Johnson, Robt Marshall, Nashville  
Johnston, Robt K, Nashville  
Johnston, William D, Nashville  
Jones III, Howard W, Nashville  
Jones Jr, Orrin Lester, Nashville  
Jones, Bruce E, Nashville  
Jones, Claudia K, Nashville  
Jones, David Nando, Nashville  
Jones, David Scott, Nashville  
\*Jones, Edmund Palmer, Nashville  
Jones, Frank Emerson, Nashville  
Jones, James Donald, Nashville  
Jones, John Donald, Brentwood  
Jones, Miles J, Nashville  
Jones, Phillip R, Nashville  
\*Jordan, Thomas Malone, Nashville  
Juliao, Saul A, Brentwood  
Kaiser, Allen B, Nashville  
Kambam, Jayakumar Reddy, Nashville  
Kaminski, Michael James, Nashville  
Kaplan, Herman Jacob, Nashville  
Kaplan, Peter Robt, Nashville  
\*Karzon, David Theodore, Nashville  
Kasselberg, Alfred Guy, Nashville  
Kaufman, Alan Joel, Nashville  
Keane, William Sherman, Nashville  
\*Kendall, Cyrus Erve, Hendersonville  
Kendrick, Will Davis, Nashville  
\*Kennedy, J Allen, Nashville  
Kenner III, Wm Davis, Nashville  
\*Kennon Jr, William G, Nashville  
Keown, Mary Elizabeth, Nashville  
Keyser III, John Edward, Nashville  
Khan, Qamar Ali, Nashville  
Kidd, Jennifer Kay, Nashville  
Killman, Kathryn, Nashville  
Kilroy, Anthony Waldo, Nashville  
Kimbrell Jr, Fred Taylor, Donelson  
King Jr, Lloyd E, Nashville  
King, F Greg, Knoxville  
King, Jeffrey L, Nashville  
Kinney, Steven R, Nashville  
Kirchner Jr, Frederick K, Nashville  
Kirchner, Sandra Lynne G, Nashville  
Kirshner, Howard S, Nashville  
Knapp, David S, Hendersonville  
Knoll, L Dean, Nashville  
Knox III, George Phillip, Nashville  
Koch, Michael O, Nashville  
\*Kochtitzky, Otto M, Nashville  
\*Koenig, Leonard J, Nashville  
Kondis, Deborah Jean, Nashville  
Kourany, Ronald Frederic, Nashville  
\*Kramer, Lee F, Goodlettsville  
Kreegel, Drew A, Nashville  
Krohn, Don R, Smithville  
Kurtz, Bryan R, Nashville  
Kuzur, Michel Elias, Madison  
Kyger, Kent, Nashville  
\*LaVoi, Samuel Jos, Nashville  
Lamb, John Wm, Nashville  
\*Lamb, Roland D, Nashville  
Lamballe, Adrian K, Nashville  
Lancaster, Lifford Lee, Madison  
Lanford, Gregory Bryan, Nashville  
Larson III, Theodore Carl, Madison  
Latour, Dana L, Franklin  
Latour, Paul A, Nashville  
Laughlin, Lawrence Paul, Nashville  
\*Lavelly Jr, Horace T, Nashville  
\*Lawrence Jr, Granville A, Nashville  
Lawrence, Jeffrey P, Nashville  
Laws, Kenneth Howard, Nashville  
Lawson, Albert Robt, Murfreesboro  
LeCorps, Patrick J, Nashville  
\*LeQuire, Virgil S, Nashville  
Lea IV, John W, Nashville  
Lea, Clark D, Nashville  
Leavell, Sandra Reese, Nashville  
Ledbetter, William Henry, Nashville  
Lee, David Granville, Nashville  
Lee, Stanley M, Nashville  
Lee, Thomas Warren, Nashville  
Leeper, H Brian, Brentwood  
Lefkowitz, Lewis B, Nashville  
Leftwich, Russell B, Nashville  
Lentz, Jos Francis, Nashville  
Leonard, John Martin, Nashville  
\*Lester, James Peyton, Nashville  
Levine, Jon Howard, Nashville  
Levitt, Michael J, Nashville  
Lewis, Malcolm R, Nashville  
Lewis, William I, Nashville  
Lidstone, John David, Madison  
Light, Richard T, Nashville  
Lilly, Edwin Jacob, Nashville  
Limbird, Thomas J, Nashville  
Link, John Louis, Nashville  
\*Linn, Joanne Lovell, Nashville  
\*Linn, Robt J, Nashville  
Lipscomb Jr, Albert Brant, Nashville  
\*Lipscomb, Albert Brant, Nashville  
Lipson, Paul Jay, Nashville  
Lisella, Richard Scott, Nashville  
Lloyd, Kenneth Michael, Nashville  
Long, Ruth Barron, Nashville  
Long, Wendy Jo, Nashville  
Long, William Royston, Nashville  
Lovelace, Donald Ray, Kingsport  
Loveless Jr, James Alva, Nashville  
Loven, Keith H, Nashville  
Lovvorn Jr, Harold N, Nashville  
Lowe, Whitson, Nashville  
Lubow, Lawrence D, Nashville  
Lundin, Linda S, Nashville  
\*Lyle, Philip Lewis, Nashville  
Lynch, John Brown, Nashville  
MacMillan Jr, Charles W, Nashville  
Macey Jr, John W, Nashville  
Mack Jr, Harry Russell, Nashville  
Macmillan, Robt Duncan, Nashville  
Madden Jr, James Jos, Nashville  
Magee, Michael J, Nashville  
Mahler, D Mark, Nashville  
Mallard, Robt Elwood, Nashville  
Manalac Sr, Abelardo Z, Mt Juliet  
Manning, Deborah A, Nashville  
Marney, Samuel Rowe, Nashville  
-Martin, Richard B, Nashville  
Martin III, Raymond S, Nashville  
Martinez, Rogelio R, Nashville  
Mason, Thomas Emmett, Atlanta, GA  
Massie, Ralph W, Nashville  
Maxwell, G Patrick, Nashville  
\*Mayes, Ben Richardson, Nashville  
Mayes, Charles Eugene, Nashville  
McAlister, Aileen Hood, Nashville  
McAndrew, Mark Phillip, Nashville  
McCall, Herbert Travis, Madison  
McClellan, Robert E, Nashville  
McCombs, Paul Raymond, Nashville  
McConnell, Conn M, Madison  
\*McCracken, Robert Lazear, Nashville  
McDonald, Edward C, Nashville  
McFerrin, James R, Nashville  
McGehee, James Bartley, Nashville  
\*McGinnis, Charles W, Nashville  
McGrew, Susan Goshgarian, Nashville  
McGrew, Wallace, Nashville  
McIlwain, Mark Ray, Tusculumbia, AL  
McInnis, John Cameron, Nashville  
McKay, Charles E, Nashville  
McKee, David Earl, Madison  
McKenna, Samuel Jay, Nashville  
McLeod, Alexander C, Nashville  
McMahan, John Wellington, Nashville  
\*McMurray, M Charles, Nashville  
McMurtry, Cecil E, Springfield  
McNabb, Paul Carter, Nashville  
\*McPherson, Ewing William, Nashville  
McRae, John Radford, Nashville  
Meacham, Patrick W, Nashville  
\*Meacham, William Feland, Nashville  
Meador, Clifton K, Nashville  
Meador, Keith G, Nashville  
Meadors III, Marvin Porter, Nashville  
Meadors, Michael H, Nashville  
Melkin, Stephen Pellar, Nashville  
Mencio, Gregory A, Nashville  
Mendoza, Daniel, Hendersonville  
Menzie, James W, Nashville  
Merrill, Walter Hilson, Nashville  
Merritt II, Cullen R, Nashville  
Metts III, Vergil L, Brentwood  
Meyer Jr, Alvin Henry, Donelson  
-Meyers, Laura L, Nashville  
Michael, Paul R, Nashville  
Milek, Michael A, Nashville  
Miller Jr, James Olney, Madison  
Miller, Andrew Herron, Nashville  
Miller, Bonnie Mersky, Nashville  
Miller, Joe M, Nashville  
Miller, John M, Nashville  
Miller, Michael E, Franklin  
Miller, Michael Peter, Nashville  
Miller, Robert F, Nashville  
Millis, James Brown, Nashville  
Minch, F Michael, Nashville  
\*Minton, Lee Roy, Nashville  
Miranda, Fernando T, Nashville  
Mishu, Dina Hanna, Goodlettsville  
Mitchell, Carl Edward, Nashville  
Mitchell, Douglas Park, Nashville  
Mitchell, Larry M, Nashville  
Mitchell, Laura A, Nashville  
Mitchell, Michael Thomas, Nashville  
Mixon, James Christopher, Brentwood  
\*Money, Roy Wilson, Hermitage  
Montesi, Scott Anthony, Nashville  
Montgomery, Marcia A, Nashville  
Moore, James N, Nashville  
Moore, Walton Louis, Brentwood  
Moran, Houston, Nashville  
Moreau, Gordon A, Nashville  
Moredock, Gerald Michael, Nashville  
Morehead, V Tupper, Nashville  
Morgan III, Walter McNairy, Nashville  
Morgan, David H, Nashville  
Morgan, Susan Lynn, Antioch  
Moroney, David M, Nashville  
Morris Jr, John A, Nashville  
Morrow, Jason Drew, Nashville  
Morton III, Charles E, Nashville  
Moss III, Charles Albert, Brentwood  
Moulton, Patrick Howard, Nashville  
Moyers, James Richard, Nashville  
Mulherin Jr, Jos Louis, Nashville  
Murphy, Patrick Brian, Nashville  
Murray Jr, Robert C, Nashville  
Murray, Michael James, Nashville  
Murray, Robert E, Nashville  
Nace, Gary Stephen, Opelika, AL  
Nadeau, John Hugh, Nashville  
Nash, James L, Nashville  
Naderthal, Robert Lee, Nashville  
Neblett III, Wallace W, Nashville  
Neff, Betty K, Nashville  
Nelson, Loren Douglas, Nashville  
Nemec, Dewey G, Nashville  
Nesbitt Jr, Thomas E, Nashville  
Nesbitt, Tom Edward, Nashville  
\*Netsky, Martin Geo, Atlantic Beach, FL  
Netterville Jr, John T, Brentwood  
Newsome III, H Clay, Nashville  
Ng, Christopher C, Nashville  
Nichols, Daryl L, Nashville  
Niedermeyer, Michael E, Nashville  
\*Noel Jr, Philip Jordan, Nashville  
Norris, Margaret Swann, Nashville  
Norton, Charles Glenn, Nashville  
Norton, Douglas Edward, Nashville  
Nunn, Paula S, Nashville  
Nylander, Barbara Hartkop, Nashville  
Nylander, William Arthur, Nashville  
O'Brien, Kevin Michael, Brentwood  
O'Day, Denis Michael, Nashville  
Oakley, Jennifer Lynne, Nashville  
Oates, John Alexander, Nashville  
Odom II, Harrell, Nashville  
Oglesby, John Wills, Nashville  
Oldfield, Elizabeth L, Nashville  
Oldham, Richard Randolph, Nashville  
Ollapally, Elsie P, Nashville  
Olsen, Douglas Ole, Nashville  
Olson, Barbara Jean, Nashville  
Orcutt, Thomas William, Nashville  
Orland, Richard A, Nashville  
Orth, David N, Nashville  
Ossoff, Robert H, Nashville  
Overfield, Ronald Edwin, Nashville  
Owen, Robt Carroll, Nashville  
Owens, Julie Lynne, Nashville  
\*Ownbey, Richard Phillip, Nashville  
P'Pool Jr, Bruce, Nashville  
Page Jr, Harry L, Nashville  
Page, David Lee, Nashville  
Palacio-Del Valle, Gustavo, Nashville  
Pardue, Chris C, Nashville  
Paris, Trevor Hambling, Madison  
\*Parker, Roy W, Nashville  
Parris, Winston Clive Vic, Nashville  
Parrish, Carolyn M, Nashville  
\*Parrish, Thomas Franklin, Nashville  
Partain, C Leon, Nashville  
Pasipanodya, Alphonse, Nashville  
\*Pass, Bernard J, Nashville  
Pass, Lawrence J, Madison  
Pate, John Kirby, Nashville  
Patikas, Takis, Nashville  
Patten, W Thomas, Goodlettsville  
\*Patterson Jr, Robt C, Nashville  
Patterson, Arthur Knox, Nashville  
Patterson, Warren R, Nashville  
Payne, Stephen James, Nashville  
Payne, William Faxon, Nashville  
Pecache, Conchita T, Madison  
\*Peerman Jr, Charles G, Nashville  
\*Peery Jr, Clarence E, Nashville  
Pelerossi, Mark Francis, Nashville  
Pendergrass, Henry P, Nashville  
Penley, William Charles, Nashville  
Pennington Jr, Jefferson, Nashville



Pennington, Thomas G, Nashville  
 Perales, Maria Isabel, Nashville  
 Perales, Pedro Juan, Madison  
 Perler, Geo L, Nashville  
 Perlman, Stewart Neal, Nashville  
 Perlmutter, Martin I, Nashville  
 -Perry, Stephanie R, Nashville  
 Perry Jr, Frank A, Nashville  
 Perry Jr, James Murray, Madison  
 Perry, Stephanie Mouton, Nashville  
 Persse, Timothy F, Nashville  
 Peters, John Edward, Nashville  
 Petracek, Michael Ray, Nashville  
 Petrie, William M, Nashville  
 Pettit, William Albert, Nashville  
 \*Pettus Jr, Robt L, Madison  
 Pettus, William Harold, Nashville  
 Phillips, Daniel L, Nashville  
 Phythyon, James Martin, Nashville  
 \*Pickens Jr, David R, Nashville  
 Pierce Jr, Edgar H, Nashville  
 Pierce, Elizabeth P, Goodlettsville  
 Pietsch, John B, Nashville  
 Pilkinton, Robt Dale, Madison  
 Pinto-Cisneros, Socrates, Smyrna  
 Piper, Sharon Marie, Nashville  
 Pippin, Michael S, Nashville  
 Poag, Kenneth Leslie, Nashville  
 \*Pomeroy, Howard Clifton, Nashville  
 Porch III, Phillip P, Nashville  
 Porch Jr, Phillip P, Nashville  
 Porter III, Lester L, Nashville  
 Potanin, Constantine, Nashville  
 Potts, Thomas Edward, Nashville  
 Powers, James S, Nashville  
 Prakash, Andani Siddappa, Nashville  
 Prakash, Rudra, Brentwood  
 Pratt, Stephen M, Nashville  
 Presley, Richard Eldon, Nashville  
 Pribor, Hugo C, Nashville  
 Price, Ann Hutcheson, Nashville  
 Price, James Sterling, Nashville  
 Price, John Duncan, Nashville  
 Price, Neil M, Nashville  
 Priest II, Edward M, Nashville  
 Pruitt, Ronald E, Nashville  
 \*Quimby Jr, Charles Willis, Franklin  
 Quinn, Robert S, Nashville  
 \*Quinn, Robert W, Nashville  
 Quisling, Richard W, Nashville  
 Raefsky, Eric Lee, Nashville  
 Rainey, Richard Epes, Goodlettsville  
 Rajashekaraiah, K M, Nashville  
 Ralph Jr, William Bennett, Nashville  
 Ramos, Andres A, Nashville  
 Ramsey, James Albert, Brentwood  
 \*Ramsey, Lloyd H, Nashville  
 Rao, Babu V, Nashville  
 Ray, Wesley Clark, Antioch  
 Reddy, Churku Mohan, Nashville  
 Reed, Michael Christopher, Nashville  
 Regan, Judith J, Nashville  
 Regen Jr, Eugene M, Nashville  
 Reid, Michael L, Nashville  
 Reilly, M Kathleen, Nashville  
 Rembert, Francis Marion, Nashville  
 Renfro Jr, Roy James, Nashville  
 Renfro, Roy James, Nashville  
 Reynolds, Vernon Harry, Nashville  
 \*Rhea, Edward Bullock, Old Hickory  
 \*Ribeiro, Lenor De Sa, Nashville  
 Rice, Jack O, Nashville  
 \*Rice, John Ralph, Nashville  
 Rice, Ronnie Neal, Hendersonville  
 Richards, Bruce Earle, Nashville  
 Richards, James P, Nashville  
 Richards, Sherrie Anderson, Nashville  
 Richie, Robt Eugene, Nashville  
 \*Ricketson, Robt A G, Nashville  
 \*Riddell, Douglas H, Nashville  
 Riedel, Robert David, Nashville  
 Ries, William Russell, Nashville  
 Riestra, Jorge Casanova, Nashville  
 Ripley, Robert C, Nashville  
 Rivas, Alejandro A, Old Hickory  
 Robbins II, Lansdon B, Nashville  
 Robertson, Randolph H, Nashville  
 Robinette Jr, Charles L, Nashville  
 Robinson Jr, N David, Brentwood  
 Robinson, Patricia, Nashville  
 Robinson, Robert Willard, Nashville  
 Robinson, Roscoe R, Nashville  
 Rocco, Vito K, Nashville  
 Rochester, Richard Earle, Nashville  
 Rodes II, W Dyer, Nashville  
 Rodriguez, R Michael, Nashville  
 Rogers, Judson E, Nashville  
 Rojas-Brasseti, Jorge, Nashville  
 Rosen, Barrett Frank, Nashville  
 Rosen, Howard E, Nashville  
 Rosenblatt, Paul Allen, Nashville  
 Rosenblum, Howard H, Nashville  
 \*Rosenblum, Marvin Jonas, Nashville  
 \*Rosenblum, Solomon A, Nashville  
 \*Rosenfeld, Louis, Nashville  
 Ross, Joseph C, Nashville  
 \*Ross, Peirce M, Nashville  
 Rowe, David M, Nashville  
 \*Roy, Robt M, Nashville  
 Ruark, Deborah S, Hermitage  
 Rubinowicz, Richard, Nashville  
 Runyon-Hass, Arthur, Nashville  
 Rush, Charles Bennet, Nashville  
 Russell, Robert Vance, Nashville  
 Rutherford, Edmund J, Nashville  
 Rutledge, Saml Benton, Nashville  
 Ryu, Chi Yol, Madison  
 Sacks, Eugene I, Nashville  
 Sacks, Glynis Ann, Nashville  
 Sadler, Robt Neil, Nashville  
 Salcedo, Pepito Yapit, Madison  
 Salyer, Howard Lee, Nashville  
 \*Sampson, Louis, Nashville  
 Sanders III, Dan Sumner, Nashville  
 \*Sanders Jr, Dan Sumner, Nashville  
 Sanders, Harvey Stanford, Nashville  
 Sanders, Mitchell Keith, Nashville  
 Sandidge, Paula Conaway, Nashville  
 Sandidge, Robin Elizabeth, Nashville  
 Sanes Jr, Gilmore M, Hendersonville  
 Santi, Michael Thomas, Nashville  
 Sarratt, Madison H, Nashville  
 Sator, Inocentes A, Old Hickory  
 Satterfield, Robert G, Donelson  
 Sawyers, John L, Nashville  
 Sawyers, Julia Edwards, Nashville  
 Schaffner, William, Nashville  
 Schatz, Mary L Pullig, Brentwood  
 Schillig, Stephen, Nashville  
 Schneider, Richard Paul, Nashville  
 Schoettle, Timothy P, Nashville  
 \*Schulman, Herbert J, Nashville  
 Schultenover, Stephen John, Nashville  
 Schultheiss, David Earl, Nashville  
 Schwaber, Mitchell Keith, Nashville  
 Schwartz, Jonathan Martin, Nashville  
 Schweikert, John Robt, Nashville  
 Schweikert, Nancie R, Nashville  
 Scobey, Jos Wilburn, Madison  
 \*Scott Jr, Henry Wm, Nashville  
 \*Scoville Jr, Addison B, Sanibel, FL  
 Scoville Jr, George S, Nashville  
 Sears, Kenneth Lewis, Nashville  
 Seitz, Paul A, Nashville  
 \*Sell, C Gordon, Nashville  
 \*Sell, Sarah Hamilton, Nashville  
 Sergeant, John Stanley, Nashville  
 Seshul, Michael Boyd, Nashville  
 Settle, Charles Sidney, Nashville  
 Sewell, Robt Alvin, Nashville  
 Shack, Robert Bruce, Nashville  
 Shackelford, Elbert C, Hendersonville  
 Shaff, Max I, Nashville  
 Shankle, Nelson Edward, Nashville  
 Sharp, Kenneth W, Nashville  
 Sharp, Vernon H, Nashville  
 Shearer, Cynthia Lee, Nashville  
 Shell Jr, William Alfred, Nashville  
 Shenai, Jayant P, Nashville  
 Sheridan Jr, William F, Nashville  
 Sherman, Deborah D, Nashville  
 Shields, John Alfred, Nashville  
 Shmerling, Abram Carl, Nashville  
 Shousha, Alfred, Nashville  
 Shull Jr, Harrison J, Nashville  
 \*Shull, Harrison J, Nashville  
 Shultz, Thomas Francis, Nashville  
 \*Shupe, David Ralston W, Nashville  
 Siegel, Marc N, Nashville  
 Sikes, J Gregory, Nashville  
 Silbert, Burton, Nashville  
 Simpson, Lucien Caldwell, Nashville  
 \*Sims, Norman Le Master, Jacksonville, AR  
 Singh, Alvin R, Murfreesboro  
 \*Skinner, William, Nashville  
 Slaton, Paul Ernest, Nashville  
 Slonecker, William Thomas, Brentwood  
 Smallwood, Geoffrey H, Nashville  
 Smith Jr, Grover R, Nashville  
 Smith, Bradley Edgerton, Nashville  
 Smith, Charles Burnett, Nashville  
 Smith, Charles Ray, Nashville  
 Smith, Harold Patton, Nashville  
 Smith, Langdon G, Antioch  
 Smith, Murray Wilton, Nashville  
 Smith, Raphael Ford, Nashville  
 Smith, Russell R, Goodlettsville  
 Smith, Samuel A, Brentwood  
 Smith, William B, Hendersonville  
 Snell Jr, James D, Nashville  
 Snell, Barbara B, Nashville  
 Snow, S Steve, Nashville  
 \*Snowden, Mary Ann R, Nashville  
 Snyder, Howard Marc, Nashville  
 Snyder, Robt Bruce, Nashville  
 Sofranko, Jos Edward, Madison  
 Somayaji, Buntwal N, Nashville  
 \*Son, Choon Duck, Lyles  
 Soper, Brent Aleshire, Madison  
 Spalding, Michael Jon, Nashville  
 Spaw, Albert T, Nashville  
 Spengler, Dan M, Nashville  
 Sperring, Steven J, Nashville  
 Spickard, W Anderson, Nashville  
 Spigel, Stuart Chas, Nashville  
 \*Sproffkin, Bertram E, Nashville  
 Sprouse, Daphne, Nashville  
 Srinivas, Naveen, Nashville  
 Stabile, Michael J, Nashville  
 Staggs, Stephen Michael, Brentwood  
 Starkey, Thomas D, Nashville  
 Starnes, Daniel L, Nashville  
 Steier, Jill, Hendersonville  
 Stein, Richard S, Nashville  
 Stein, Robt Elliot, Nashville  
 Stevens Jr, Frank W, Nashville  
 \*Stevens, Frank Wilson, Nashville  
 Stewart III, William R C, Antioch  
 \*Stewart, Lee Wm, Nashville  
 Stewart, Radford C, Nashville  
 Stewart, Richard Baird, Nashville  
 -Stoffel, Christine Marie, Nashville  
 Stoll, Brian D, Nashville  
 Stolz, Margaret M, Antioch  
 Stone, Gertrude Odhmg, Nashville  
 Stone, William John, Nashville  
 Stoney, William Shannon, Nashville  
 Storey, David Wayne, Hendersonville  
 Stouder, Dennis Alan, Nashville  
 Stowers, Stewart F, Nashville  
 Strange Jr, Glen J, Nashville  
 Stratton, Charles W, Nashville  
 Strayhorn III, William David, Nashville  
 Strickland, William Garrison, Nashville  
 Stricklin, George P, Nashville  
 Striepe, Volker, Nashville  
 Strimas, John Howard, Nashville  
 Strode, Wilborn D, Nashville  
 Stroup, Steven L, Nashville  
 Strupp, John Allen, Nashville  
 Stubblefield, Mark Thomas, Nashville  
 Stumb, Paul Rust, Nashville  
 Sullivan, James N, Nashville  
 Sundell, Hakan Wilhelm, Nashville  
 Sunga-Guevara, Marietta, Madison  
 Susskind, Cynthia G, Nashville  
 Sussman, Craig Richard, Nashville  
 \*Sutherland Jr, Arthur J, Nashville  
 Swanson, Gary D, Franklin  
 Swenson, Brian Robert, Nashville  
 Switter, David John, Nashville  
 Taber, David S, Nashville  
 Tacogue, Loyda C, Nashville  
 Tallent Jr, Marion B, Brentwood  
 Tannenbaum, Jerome S, Nashville  
 \*Tanner, John M, Nashville  
 \*Tarpley, Edward Lewis, Nashville  
 Tarter, Stanley Keith, Nashville  
 Tate, Harry T, Madison  
 Tate, Steven M, Brentwood  
 Taylor, Dean Gates, Brentwood  
 Terry, Richard B, Nashville  
 Teschan, Paul Erhard, Nashville  
 Tetzeli, John Paul, Nashville  
 \*Thach Jr, Andrew Blaine, Nashville  
 Thomas Jr, Clarence S, Nashville  
 Thomas, E Dewey, Nashville  
 Thomas, Jane M, Nashville  
 Thomas, Michael Carey, Nashville  
 Thomas, Thomas C, Nashville  
 Thombs, David Dawson, Nashville  
 Thomison Jr, John B, Brentwood  
 \*Thomison, John B, Brentwood  
 Thomison, Rena M, Nashville  
 Thompson Jr, John G, Nashville  
 Thompson, Harold D, Brentwood  
 Thompson, Julia, Goodlettsville  
 Thompson, William Clark, Nashville  
 Thorne, Chas B, Nashville  
 Thornton, Spencer P, Nashville  
 Thurman, Grafton H, Madison  
 Thurman, Stephen S, Nashville  
 Tiscaric, Stephen Theodore, Madison  
 Tilley, Kenneth Shannon, Nashville  
 Tipton, Edmund F, Nashville  
 \*Tirrell III, Willard O, Nashville  
 Titus III, William P, Nashville  
 \*Todd Jr, Kirkland W, Nashville  
 Tomichak, Richard C, Nashville  
 Tompkins, Thomas E, Nashville  
 Toomey, Thomas Philip, Nashville  
 -Torgerson, Troy R, Nashville  
 Tosh, Robt H, Nashville  
 Townes, Alexander S, Nashville  
 Trabue, Anthony E, Nashville  
 Trapp, John Douglas, Nashville  
 \*Traugher Jr, Leslie E, Nashville  
 Travis, Lawrence Warren, Nashville  
 Treadway, Chas Richard, Nashville  
 Triggs, Elizabeth Grimes, Nashville  
 Trochtenberg, David Scott, Nashville  
 Tucker Jr, Aubrey Lee, Nashville  
 \*Tudor Jr, John M, Nashville  
 Tumen, Jon Jay, Nashville  
 Turner, Bruce Irwin, Nashville  
 Turner, Dorothy J, Nashville  
 Turner-Graham, Cynthia A, Nashville  
 Urbanek, Anthony P, Nashville  
 Uskavitch, David R, Nashville  
 Valosik, Robert A, Nashville  
 VanBuren, David Howard, Nashville  
 VanBuren, Karen Lynn, Lebanon  
 Vandevender, Frank Karl, Nashville  
 Vanhooydonk, John E, Nashville  
 \*Viehman, Arthur J, Madison  
 Vincent, James L, Nashville  
 Vora, Pravinchandra Z, Nashville  
 Vosberg, Diane Marie, Nashville  
 Wadley, Fredia S, Nashville  
 Wadlington, William B, Nashville  
 Wagner, Martin H, Nashville  
 Wagstrom, Lois, Nashville  
 Wahl, Robt Wilhelm, Nashville  
 Walpole Jr, Howard T, Nashville  
 Walwyn, Lloyd A, Madison  
 Wampler, John Millard, Nashville  
 Ward Jr, James W, Madison  
 \*Ward, James William, Nashville  
 \*Ward, Russell D, Nashville  
 \*Warder, Thomas F, Jacksonville, FL  
 Ware, Nancy Lynn, Nashville  
 Warner, John J, Nashville  
 Warner, John Sloan, Nashville  
 Wasudev, Geeta Pramod, Nashville  
 Wasudev, Pramod B, Madison



Waterhouse, George, Nashville  
 Watson, Horace Eugene, Nashville  
 Watts, David Reed, Nashville  
 Wayburn Jr, Gates Jordan, Nashville  
 Weaver, Gregory R, Nashville  
 Webb, Roseanna Aileen, Nashville  
 Weinberg, Jane Ruth, Nashville  
 Weindling, Steven M, Nashville  
 Weiss, Manuel Robert, Nashville  
 Wells, Chas E, Nashville  
 Werther, John Robert, Nashville  
 Wesley, Ralph E, Nashville  
 West, W Scott, Nashville  
 Wheeler, Arville Vance, Nashville  
 Wheeler, Paul W, Nashville  
 Wheelock, John B, Nashville  
 Whetsell Jr, William O, Nashville  
 White, Houston Wayne, Nashville  
 White, Steve A, Goodlettsville  
 Whitfield Jr, Thomas C, Brentwood  
 Whitfield, Jeff David, Nashville  
 \*Whitfield, Joe T, Franklin  
 Whitworth, Pat W, Nashville  
 Whitworth, Thomas Clayton, Nashville  
 \*Wilkinson, Erle Ewing, Nashville  
 Will, Melissa A, Nashville  
 Williams Jr, W Carter, Nashville  
 Williams, Adrienne M, Nashville  
 Williams, Laura L, Nashville  
 Williams, Lester F, Nashville  
 Williard, Kenny F, Nashville  
 Willis, Larry Gale, Nashville  
 Wilson, James Phillip, Nashville  
 \*Wilson, Vernon Earl, Mt Pleasant, SC  
 \*Wilson, Wendell Winfred, Old Hickory  
 Winek, David K, Nashville  
 Winfield, Alan C, Nashville  
 Winter, Eugene J, Nashville  
 Winterland, Anne Woeste, Franklin  
 \*Witherspoon, Frank G, Nashville  
 Witherspoon, John D, Nashville  
 Witthauer, Norman Everett, Nashville  
 \*Witztum, Harry, Los Angeles, CA  
 Wolf Jr, John Stuart, Nashville  
 Wolf, Bruce Lee, Nashville  
 Wolfe, Lawrence Kenneth, Nashville  
 Wolfson, Sorrell Louis, Nashville  
 \*Womack Jr, Frank C, Franklin  
 Wood, Alastair J J, Nashville  
 Wood, Geo Wallace, Nashville  
 \*Woodcock Jr, Clarence C, Nashville  
 \*Woodfin, Mose Clarke, Nashville  
 \*Woods, John Robt, Ocala, FL  
 Wooten III, N Eric, Nashville  
 Workman III, Claude H, Nashville  
 Workman, Robert Jay, Nashville  
 Worrell, John Anthony, Nashville  
 Worthington, William B, Nashville  
 Wouters, Susan L, Brentwood  
 Wouters, Ben, Brentwood  
 Wray, Taylor M, Nashville  
 Wright Jr, Francis Hamilton, Nashville  
 Wright, Doris Jacquelyn, Nashville  
 Wright, George D, Nashville  
 Wright, John Kelly, Nashville  
 Wyatt, Kenneth N, Hendersonville  
 -Yadav, Anant, Nashville  
 -Yates, H Kendle, Nashville  
 Yates, David Robt, Hermitage  
 Ynares, Christina M, Nashville  
 Young, Larry Creston, Nashville  
 Youree, Cynthia C, Brentwood  
 Zelle, Ronald T, Madison  
 Zimmerman, Carl Wayne, Nashville

#### NORTHWEST TENNESSEE ACADEMY OF MEDICINE

Algee Jr, Wyatt R, Dyersburg  
 Allison, Jack R, Huntingdon  
 \*Baird, Jesse P, Dyersburg  
 \*Banks, Thomas V, Dyersburg  
 Beale, Hobart H, Martin  
 Blanton III, Marvin A, Union City  
 Boston, Thomas E, Dyersburg  
 Bradberry, Sam, Union City  
 Brown, Bruce B, Union City  
 Butler Jr, Arden Jones, Ripley  
 Butler, Harold Dee, Union City  
 Cameron, Robt Lynn, Union City  
 Carr, Kenneth, Martin  
 Caylor, Jim A, Dyersburg  
 Chu, Roy W, Dyersburg  
 Clendenin Jr, Robt E, Union City  
 Connell, Joseph D, Dyersburg  
 Cruthirds, Terry Park, Martin  
 David, Mary Stuart, Dyersburg  
 David, Walter E, Dyersburg  
 DeCoursey, Kenneth Allen, Ripley  
 Dodd, Halbert B, Union City  
 Duncan, William Lloyd, Martin  
 Eason, William, Martin  
 Elam, Morris Greg, Martin  
 Fan, Sik Man, Ripley  
 Fava, Anthony Joseph, Dyersburg  
 Freeman, Gordon R, Dyersburg  
 Gooch, Allen Christopher, Troy  
 Guthrie, David Porter, Dyersburg  
 Hale, John W, Union City  
 Harrington, Robt Lee, Dyersburg  
 Harris, Lee S, Dyersburg  
 Haynes Jr, Douglas B, Dyersburg  
 \*Hill, Chesley Hester, Troy  
 Hill, Robert Paul, Troy

Hinds, Michael, Martin  
 Huff, Carl Wayne, Martin  
 Hunt, Joe, Ripley  
 \*Inclan, Aurelio Peter, Dyersburg  
 Jernigan, Jerry Marshall, Dyersburg  
 Johnson, Eloiet, Dyersburg  
 Jones, David D, Martin  
 Joyner, Johnny Barry, Dyersburg  
 \*Kerr, Robt Thompson, Dyersburg  
 Kimberlin, G Danny, Paris  
 King, Elton Aaron, Dyersburg  
 \*Kingsbury, Edward P, Union City  
 Lawrence, Roy Finch, Union City  
 Lewis, Rodger Patrick, Union City  
 Looper, Fred B, Dyersburg  
 Lyerly, Donald Newton, Martin  
 Maloney, Kenneth Roscoe, Dyersburg  
 Marsidi, Paul, Union City  
 Martin, Betsy Harris, Dyersburg  
 Moore III, Fred, Dyersburg  
 \*Moore, James Chalmers, Dyersburg  
 Mulay, Ramakant M, Dyersburg  
 Noonan, James Rothwell, Dyersburg  
 Patrick, Robert G, Martin  
 \*Phillips, William Leroy, Newbern  
 \*Porter, Nathan F, Greenfield  
 Ragsdale, James Howard, Union City  
 Reaves, John Andrew, Dyersburg  
 Reynolds, James Ralph, Dyersburg  
 Robbins, Billy Gerald, Halls  
 Sanner, Robert F, Union City  
 Schleifer III, Grover F, Union City  
 Shore, James Wm, Martin  
 \*Smith Jr, O Kay, Martin  
 Smith, David Andrew, Martin  
 Smith, James Herman, Dyersburg  
 St Clair, David Smith, Union City  
 Stewart, Charles V, Dyersburg  
 Swetnam, Jeffrey Allen, Dyersburg  
 Thompson, Thomas Reece, Dyersburg  
 Thornton Jr, W I, Dyersburg  
 Torres, Jose, Dyersburg  
 Tucker, William Henry, Ripley  
 Warner, Lynn Andrew, Dyersburg  
 \*Webb, Claude Raymond, Ripley  
 Wolfe, James Hardy, Dyersburg  
 Wong, Luis, Ripley  
 Young Jr, Robt Roger, Union City

#### OVERTON COUNTY MEDICAL SOCIETY

Clough, John R, Livingston  
 Cox, Michael Thomas, Livingston  
 Jones III, Albert A, Livingston  
 Mason, Larry, Livingston  
 Quarles Jr, Will G, Livingston  
 \*Roe, Jack Michael, Livingston  
 Smith, C Gray, Monterey

#### PUTNAM COUNTY MEDICAL SOCIETY

Adams, Robert Ralph, Cookeville  
 \*Artress, F Lynn, Cookeville  
 Barnard Jr, Vaughn N, Cookeville  
 Barnes, Sam Taylor, Cookeville  
 Bertram, Katherine Alice, Cookeville  
 Bertram, Philip, Cookeville  
 Bremer, Joyce, Cookeville  
 Breyer, James L, Cookeville  
 \*Chapin, Frederick J, Cookeville  
 \*Clark, Jack L, Cookeville  
 Coonce, Daniel F, Cookeville  
 \*DeBerry, James T, Cookeville  
 Derryberry, Walter E, Cookeville  
 Donovan, Daniel H, Cookeville  
 Douglas, Dale E, Cookeville  
 Flatt, Steven G, Cookeville  
 Francis, William Clark, Cookeville  
 Franklin, Lloyd Douglas, Cookeville  
 Glasgow, Samuel McPheeters, Cookeville  
 Goff, Katherine W, Monterey  
 Goryl, Stephen V, Cookeville  
 Gray, James C, Cookeville  
 Grisolan, James Martin, Cookeville  
 Hall, R Glenn, Cookeville  
 Hassler, Lloyd R, Cookeville  
 Hollmann, Carl M, Cookeville  
 Humphrey, William Merritt, Cookeville  
 Ivey, George L, Cookeville  
 Jackson Jr, John M, Cookeville  
 Jordan III, Charles Edward, Cookeville  
 Klein, Karl, Cookeville  
 Lawrence, Thomas L, Cookeville  
 Limbacher, John P, Cookeville  
 Love, Stewart T, Cookeville  
 \*Lowe, Jere W, Cookeville  
 Moore Jr, John T, Algood  
 Moore, Lee Stuart, Cookeville  
 Panzer, James David, Cookeville  
 Rayne, Frederick S, Cookeville  
 Samples, Randall Gary, Cookeville  
 Shaw, James William, Cookeville  
 \*Shipley, Thurman, Cookeville  
 Smith, Sullivan K, Cookeville  
 Stuber, Harry L, Cookeville  
 Talmage, James B, Cookeville  
 Tansil, Donald Wayne, Cookeville  
 Taylor, William Snodgrass, Cookeville  
 Vossell Jr, Louis F, Cookeville  
 \*Wahl, Joseph W, Birmingham, AL  
 \*Williams, Claude M, Cookeville  
 Womack III, Charles T, Cookeville  
 \*Zimmerman Jr, Guy, Byrdstown

#### ROANE-ANDERSON COUNTY MEDICAL SOCIETY

Ahler, Albert Julian, Harriman  
 Allen, Janet, Oak Ridge  
 Barron, David Michael, Oak Ridge  
 Barry, Frederick James, Oak Ridge  
 Bernstorf, Robert C, Oak Ridge  
 \*Bigelow, Robt Ramsey, Oak Ridge  
 Bingham, Terry M, Harriman  
 \*Bishop, Archer W, Clinton  
 Black, William John, Oak Ridge  
 Block Jr, Clement H, Oak Ridge  
 Boye, Harry George, Rockwood  
 Brantley, Richard Green, Oak Ridge  
 Bridgeman, Pamela, Oak Ridge  
 Brown Jr, Geron, Oak Ridge  
 Brown, Roy Chester, Oak Ridge  
 Bruton Jr, Charles W, Oak Ridge  
 Bunick, Elaine, Oak Ridge  
 Bursten, Ben, Oak Ridge  
 Calcagni, John Alan, Oak Ridge  
 Caldwell Jr, Thomas C, Oak Ridge  
 Caldwell, Marvin Gene, Oak Ridge  
 Carter, J Brad, Oak Ridge  
 Casey, Robert Reid, Oak Ridge  
 Caster, C Nicholas, Coalfield  
 Clary, Thomas L, Oak Ridge  
 Compton, David R, Oak Ridge  
 Conrad, Daniel E, Oak Ridge  
 Corea, Charles Joseph, Harriman  
 Cunningham, Elbert C, Harriman  
 Darling Jr, Charles Ellett, Oak Ridge  
 \*DePersio, John D, Oak Ridge  
 DeVega, Armando Fernando, Knoxville  
 Dew, Richard Allan, Oliver Springs  
 Dotson, Robert Scott, Oak Ridge  
 Eatherly, Joseph Bruce, Oak Ridge  
 Fortney, T Guy, Oak Ridge  
 Fuller, Robert Paul, Oak Ridge  
 Genella Jr, Frank H, Oak Ridge  
 Gentry, Robert E, Knoxville  
 Gillespie Sr, James Trigg, Oak Ridge  
 Goswitz, Francis Andrew, Oak Ridge  
 Goswitz, Helen A Vodopick, Oak Ridge  
 Gowder, Timothy Dennis, Oak Ridge  
 Gupton, Henry, Oak Ridge  
 Gurney, Charles Bryson, Oak Ridge  
 \*Hardy, William P, Oak Ridge  
 Harrison, Stephen A, Oak Ridge  
 Hartman, Donald Lee, Oak Ridge  
 Heald, David Grant, Oak Ridge  
 Hedden Jr, Henry, Clinton  
 Heintz, Richard, Knoxville  
 Hellmann Jr, Robert S, Harriman  
 Henry Jr, James E, Oak Ridge  
 Hilton, James Isaiah, Oak Ridge  
 Howard, Robt G, Oak Ridge  
 Jernigan, John Forrest, Oak Ridge  
 \*Jones, H Stratton, Harriman  
 Jones, Otis W, Oak Ridge  
 Kaebnick, Ernest Elliott, Oak Ridge  
 Kerley, Harold Eugene, Oak Ridge  
 \*King, Avery Parsons, Oak Ridge  
 Krishnan, Lalita, Oak Ridge  
 Lawson, M Wendell, Oak Ridge  
 Lech, Ronald, Oak Ridge  
 Lee, Larry H, Oak Ridge  
 Lew, Ira Eugene, Oak Ridge  
 Long, David Dale, Oak Ridge  
 Loy, William Allen, Oak Ridge  
 Luckmann, Kenneth F, Oak Ridge  
 \*Lushbaugh, Clarence C, Oak Ridge  
 Lynch, Thomas P, Oak Ridge  
 Lynnes, Howard M, Rockwood  
 \*Lyon, Joseph S, Oak Ridge  
 McKellar, Duncan, Oak Ridge  
 McMahon, Cletus Joseph, Oak Ridge  
 McMillin, Rodney M, Harriman  
 McNeeley, Edward Trent, Norris  
 McNeeley, Howard B, Norris  
 McNeeley, Samuel Gene, Norris  
 Metcalf IV, Joseph, Oak Ridge  
 Metcalf, Thomas H, Oak Ridge  
 Miller Jr, Kenneth T, Oak Ridge  
 Mitchell, Charles Stone, Oak Ridge  
 Molony, William Lawrence, Oak Ridge  
 Neal, Gary W, Oliver Springs  
 Oesch, Timothy Ralph, Oak Ridge  
 \*Palmer, Etna Little, Oak Ridge  
 Paret, Robert W, Oak Ridge  
 Parrish, Richard E, Oak Ridge  
 Parrott, James A, Oak Ridge  
 Pearson, Randall E, Oak Ridge  
 Peters, Scott W, Oak Ridge  
 Posman, Clifford L, Oak Ridge  
 Prater, William K, Oak Ridge  
 \*Preston, Lewis Frederick, Oak Ridge  
 \*Pugh Jr, William W, Oak Ridge  
 Reid, Francis R, Oak Ridge  
 Ricks, Phillip M, Oak Ridge  
 Roberts, Anne Sanchez, Oak Ridge  
 Roberts, David Franklin, Clinton  
 Rouse, James M, Oak Ridge  
 Schultz, Richard L, Oak Ridge  
 Seay, David Worrell, Oak Ridge  
 \*Sensenbach, Charles Willis, Oak Ridge  
 Sharp, Donald Alan, Oak Ridge  
 Sigmars, Liselotte E, Oak Ridge  
 Sisk, John R, Knoxville  
 Smalley, Lee Alan, Oak Ridge  
 Snodgrass, John Vass, Rockwood  
 \*Spray, Paul Ellsworth, Oak Ridge  
 Stanley, David Granville, Clinton



Sterling, Steven Lloyd, Oak Ridge  
 Stevens III, Geo Miller, Oak Ridge  
 Tedder, Miriam B, Harriman  
 \*Thomas, Danl Martin, Clinton  
 Thurston, Floyd E, Oak Ridge  
 Tittle, Joe Evan, Oak Ridge  
 Upchurch, D Thomas, Oak Ridge  
 Vargas, Eugenio, Oak Ridge  
 Walker, Robert Earl, Oak Ridge  
 Weems, Alan McMurry, Oak Ridge  
 Weight, Glen R, Oak Ridge  
 Welch Jr, John Wm, Oak Ridge  
 Wheelhouse, Walter W, Lawrenceburg  
 Willett, Dwight H, Kingston  
 Zanolli, Gino, Oak Ridge

#### ROBERTSON COUNTY MEDICAL SOCIETY

Bassel, John Burr, Springfield  
 Crunk, Tommy M, Springfield  
 Gray, James Travis, Springfield  
 Hartzheim, Paul D, Springfield  
 \*Hayes, Warren G, Springfield  
 \*Jackson, John McReynolds, Lebanon  
 Krueger, Thomas C, Springfield  
 Kumar, Sarbjeet Singh, Springfield  
 Lewis, W Michael, Greenbrier  
 O'Donnell III, John Wm, Springfield  
 \*Quarles, James Richard, Springfield  
 Satpathy, Panchanan, Springfield  
 \*Stone, William Pipkin, Springfield  
 \*Turner, John Bunyan, Springfield  
 Webster, Raymond Harris, Springfield

#### RUTHERFORD COUNTY/STONES RIVER ACADEMY OF MEDICINE

Abernathy, James P, Murfreesboro  
 \*Adams, Carl E, Murfreesboro  
 Akin, Harold T, Murfreesboro  
 Al-Abdulla, Abdul-Sahib M, Murfreesboro  
 Alexander, John Hutchins, Murfreesboro  
 \*Allen, James T, Murfreesboro  
 Bailey, Joseph C, Murfreesboro  
 Beasley, Timothy J, Murfreesboro  
 Bell, Richard Bryan, Murfreesboro  
 Boerner, James L, Murfreesboro  
 Boone, Joseph E, Murfreesboro  
 Bradley Jr, Donald H, Murfreesboro  
 Brown, William Andrew, Murfreesboro  
 Bryant, Rodney Craig, Woodbury  
 \*Bryant, William Arthur, Woodbury  
 Bullock, Sally H, Murfreesboro  
 Butler Jr, Henry K, Murfreesboro  
 Byrnes, John M, Smyrna  
 Caissie, Kenneth F, Murfreesboro  
 Campbell, Jerry N, Murfreesboro  
 Carter, Dennis C, Murfreesboro  
 Carter, Sam Frank, Murfreesboro  
 Clark, S Kathleen, Murfreesboro  
 Cleveland, Robert R, Murfreesboro  
 \*Cohen, Henry A, Barrington, RI  
 \*Davison, Bernard S, Murfreesboro  
 Dixon, John Herman, Murfreesboro  
 Dodd, David T, Murfreesboro  
 Dray, Robert J, Murfreesboro  
 Eckles, George, Murfreesboro  
 Galloway, Russell E, Murfreesboro  
 Galloway, Sherry J, Murfreesboro  
 Garner Jr, James W, Murfreesboro  
 \*Garrison Jr, Sidney C, Murfreesboro  
 Garrison, R James, Murfreesboro  
 Goodman Jr, Charles E, Murfreesboro  
 \*Green, Richard E, Woodbury  
 \*Hauser, Fred Warren, Murfreesboro  
 \*Hay, Sam H, Murfreesboro  
 Hazley, Andrew John, Murfreesboro  
 Hester, George S, Murfreesboro  
 Hopkins, David, Murfreesboro  
 Hudson, David Lee, Murfreesboro  
 \*Hutchison, Norton H, Brentwood  
 Ingle, Robert P, Murfreesboro  
 Jekot, William J, Murfreesboro  
 Johns, O Tom, Murfreesboro  
 Johnson, David L, Murfreesboro  
 \*Kaufman, James Kenneth, Murfreesboro  
 Knight, Joseph C, Murfreesboro  
 Knight, Robert T, Murfreesboro  
 LaRoche, Elizabeth R, Murfreesboro  
 LeDoux, Paul David, Murfreesboro  
 Lewis, Charles W, Murfreesboro  
 Lien, George Harrison, Murfreesboro  
 Long, Sammie Inez, Nashville  
 Lovelace, Fred R, Murfreesboro  
 Lowe, Lisa Lynn, Murfreesboro  
 Lowery, E Ray, Murfreesboro  
 McKnight, David T, Murfreesboro  
 McPherson, Warren F, Murfreesboro  
 \*Moore, Ralph B, Candler, NC  
 Mullen, Stanley P, Woodbury  
 Murphy, Wayne, Murfreesboro  
 Nunnery, James A, Murfreesboro  
 \*Odom, Eugene P, Murfreesboro  
 Odom, Steve G, Murfreesboro  
 Ours, David E, Murfreesboro  
 Owen, Ann B, Murfreesboro  
 Pearson, John G, Murfreesboro  
 Polk, T Allen, Murfreesboro  
 Proctor, George T, Nashville  
 Ransom, Robert G, Murfreesboro  
 Rebeiro, Egbert M, Murfreesboro  
 Rekha, Gollakota Satya, Murfreesboro  
 Reuhland, Leon L, Woodbury  
 Richerson, Dennis Ray, Murfreesboro

Rogers, Richard A, Murfreesboro  
 Rudd, J Daniel, Murfreesboro  
 \*Shacklett, William W, Murfreesboro  
 Shelton, Ben A, Smyrna  
 Singh, Ravi P, Murfreesboro  
 Smith, Radford, Murfreesboro  
 Soper, Richard Graves, Murfreesboro  
 Starrett, James Alan, Murfreesboro  
 Swafford Jr, Carl A, Murfreesboro  
 \*Tenpenny, James W, Murfreesboro  
 Thompson, Brian M, Murfreesboro  
 Tolbert, E C, Murfreesboro  
 Tuma, Robert P, Murfreesboro  
 Turner, Thomas A, Brentwood  
 Westmoreland, M Wayne, Murfreesboro  
 Williams, Kenna Jane, Murfreesboro  
 Williams, Olin, Murfreesboro  
 Winters, Deborah Ann, McMinnville  
 Witt, Terry J, Murfreesboro  
 Wolf, Herbert Richard, Woodbury  
 Young, J Howard, Murfreesboro

#### SCOTT COUNTY MEDICAL SOCIETY

Coffey, David B, Oneida  
 Grigsby, David A, Oneida  
 Hall, Thomas K, Oneida  
 Huff, Maxwell E, Oneida  
 \*Leeds, Horace Mott, Oneida  
 Newell, Barbara Steed, Oneida  
 Spjuth, Sven Olof, Oneida

#### SEVIER COUNTY MEDICAL SOCIETY

Bozeman II, Charles H, Sevierville  
 \*Broady, Robt A, Sevierville  
 \*Hickman Jr, James H, Kodak  
 Jacobs Jr, John C, Sevierville  
 Kidd Jr, Charles E, Sevierville  
 Knopp, Frank, Sevierville  
 McGaha, Samuel W, Sevierville  
 \*Murphy, Richard S, Kodak  
 Roach, Charles L, Sevierville  
 Smith, Steven M, Sevierville  
 Sonner, John L, Sevierville  
 Tolley, Vincent Blane, Sevierville

#### SMITH COUNTY MEDICAL SOCIETY

Bratton, Edgar K, Hartsville  
 Duke, Roger, Carthage  
 \*Green, Hugh E, Carthage  
 \*Petty, David G, Carthage  
 Rutherford, Richard T, Carthage  
 West, Michael H, Carthage

#### SULLIVAN COUNTY MEDICAL SOCIETY

Adams, Wesley F, Bristol  
 Addington, Darryl Stephen, Kingsport  
 Agel, John Frederick, Kingsport  
 Aguirre, Dennis Manual, Bristol  
 Alley, Edmond Lynn, Kingsport  
 Allf, Bryan E, Kingsport  
 Armstrong, Joseph R, Bristol  
 Aspley, Donald, Kingsport  
 Bachman Jr, Harry Wilson, Bristol  
 Baker, Richard Dudley, Kingsport  
 Bales, Donald W, Kingsport  
 Ballington, Karen Louise, Bristol  
 Bechtel Jr, Jack T, Bristol  
 Bell, William M, Kingsport  
 Bertuso, John Richard, Kingsport  
 Bible, Michael W, Bristol  
 Bice, Charles Robert, Kingsport  
 Birkitt Jr, Glenn Hunter, Bristol  
 Blanton Jr, Frank S, Bristol  
 Blickenstaff, Theron, Kingsport  
 Bockian, Herbert Harold, Bristol  
 Boggan, Michael D, Kingsport  
 Boling, Frederick F, Kingsport  
 Bookout, J Michael, Kingsport  
 Booze, Geo Wm, Kingsport  
 Bowman, James H, Bristol  
 Boyd, Arthur Morgan, Kingsport  
 Boyle, Gary, Bristol  
 Brasfield, Jim C, Bristol  
 Breeding, Samuel David, Kingsport  
 \*Brinkley, Billy Booth, Bristol  
 Brock Jr, Howard Thos, Kingsport  
 Broglio, Anthony Lee, Bristol  
 \*Brookshire Jr, Paul F, Kingsport  
 Brown, Henry James, Kingsport  
 Buddington, Richard S, Bristol  
 Bulle, Thomas Michael, Kingsport  
 Bush, Gary Edward, Kingsport  
 Butterworth Jr, Jackson, Bristol  
 Byers Jr, John G, Bristol  
 Byrd, Keith Harold, Kingsport  
 Calcote, Claude McGhee, Bristol  
 Caldwell, Ronald David, Bristol  
 Carr, Henry Austin, Bristol  
 \*Carter, Edward Kent, Kingsport  
 Carter, Locke Yancey, Kingsport  
 Carter, Richard S, Kingsport  
 Casey, Gary Quillen, Kingsport  
 Cassidy, Kelly James, Kingsport  
 Catlin, Roger W, Bristol  
 Chamberlin, Marian L, Kingsport  
 Chandler, John M, Bristol  
 Chapman, Charles Emmitt, Bristol  
 Chapman, John L, Kingsport  
 Chartier, Gilbert John, Kingsport  
 \*Chew, Nathaniel John, Bristol

\*Christensen, Robt Chas, Kingsport  
 Clark, James W, Church Hill  
 Clark, Warner L, Church Hill  
 Colquitt, Landon Armstrong, Kingsport  
 Coogan, Joan C, Bristol  
 Cooper, Joe Byron, Kingsport  
 Cowan Jr, Bennett Y, Bristol  
 \*Cowan, Bennett Young, Bristol  
 Cowden, David Anthony, Kingsport  
 Cox, David Lemuel, Kingsport  
 Cox, Larry H, Kingsport  
 \*Crawford, Alvin S, Hilton Head Isl, SC  
 \*Credle, William Swindell, Hilton Head, SC  
 Crockett Jr, Claude H, Bristol  
 Crowder, Jack Roberts, Kingsport  
 Dallas, John L, Kingsport  
 Davis, R Alan, Bristol  
 Diamond, Marshall A, Bristol  
 Dickerson, Danl Lawrence, Kingsport  
 Doell, Robert J, Kingsport  
 Donaldson, Robert C, Blountville  
 \*Doty Sr, Robert D, Kingsport  
 Dyer Jr, William Mills, Kingsport  
 \*Early, James Lawrence, Bristol  
 Edenfield, Mark E, Kingsport  
 Emery, Mark W, Kingsport  
 \*Erwin, J W, Bristol  
 Estes, Terrell C, Bristol  
 \*Exum, William Allen, Kingsport  
 Falconer, Randall J, Kingsport  
 Felt, Richard A, Kingsport  
 Ferguson, Jere W, Bristol  
 Fincher Jr, John A, Bristol  
 Fleenor, Michael R, Bristol  
 Flora, Don Atlee, Kingsport  
 Fontaine, Darryl, Kingsport  
 Foster, Larry J, Kingsport  
 Foster, Richard W, Bristol  
 Franzus, David Harold, Kingsport  
 Funke, Robert H, Kingsport  
 Gantt, Pickens A, Kingsport  
 \*Garfield, Claude R, Kingsport  
 Garriott, David Kent, Kingsport  
 Gaylor, Walter R, Bristol  
 Geer, Robt Mac, Kingsport  
 Gendron, R M, Kingsport  
 Ginn, David Roy, Kingsport  
 Ginther, Jeffrey P, Bristol, VA  
 Glasgow, Robt Morris, Bristol  
 \*Golden, Billy N, Kingsport  
 Gonce, Joel D, Kingsport  
 Gondo, Juan, Kingsport  
 Gorrell, Alan L, Bristol  
 \*Green Jr, Waverly S, Bristol  
 Green, Edmon Lee, Bristol  
 Greene, Charles David, Kingsport  
 Greene, Thomas C, Bristol  
 Griffin, William C, Kingsport  
 Griffith, Mark William, Kingsport  
 \*Grigsby Jr, William C, Bristol  
 Grigsby, William Paul, Kingsport  
 Groce, Ann, Johnson City  
 Gwaltney, David Nelson, Bristol  
 Haddad, Michel Nasri, Kingsport  
 Harris, Wesley J, Bristol  
 \*Harrison Jr, William, Kingsport  
 \*Harter, Basil T, Bristol, VA  
 Hernandez, Gustavo E, Kingsport  
 Herzog, John L, Bristol  
 Hicks, Mack L, Kingsport  
 Hire, Ervin A, Kingsport  
 Hoffer, Phillip Franklin, Bristol  
 Hoffnung, Jack, Bristol  
 \*Hogan Jr, Marshall Davis, Kingsport  
 Houston, Charles Stephen, Kingsport  
 Hubbs, Doris Taam, Kingsport  
 Hudson, William Dudley, Kingsport  
 Hunter, Ronald W, Kingsport  
 Hutchison Jr, John E, Bristol  
 Jackson Jr, Henry Guy, Kingsport  
 \*Jamison, King Arcy, Bristol  
 Jarboe, Edith Rodgers, Blountville  
 Jayne Jr, J Lawrence, Bristol  
 \*Jernigan, Robt H, Kingsport  
 Jewell, Neal A, Bristol  
 Johnstone, William H, Bristol  
 \*Jones, Robt Clark, Kingsport  
 Jones, Samuel Riddle, Kingsport  
 Kappa, Jeffrey Ray, Kingsport  
 Kazmier, W Jan, Kingsport  
 Keith, Robt Earl, Kingsport  
 Kelly, Ronald Clark, Bristol  
 Kidwell Jr, E R, Kingsport  
 \*Kiesau, Kenneth Rudolph, Kingsport  
 Klinar, Daniel Franklin, Kingsport  
 \*Knapp, John Allen, Fort Myers, FL  
 Knickerbocker, Fred Ray, Bristol  
 Kurze Jr, Jos H, Bristol  
 Kutty, I N, Kingsport  
 Ladley, Herbert Deross, Kingsport  
 Lane, David L, Kingsport  
 Lapis, James L, Bristol  
 Ley, Joseph Anthony, Kingsport  
 Link, Nelson Edward, Bristol  
 London, Jerry Frank, Kingsport  
 Lowry, Kermit, Bristol  
 Lymberis, Marvin, Kingsport  
 Lynch, Kenneth Clyde, Kingsport  
 MacDonald, R Scott, Kingsport  
 \*Maloy, Jos Kenneth, Kingsport  
 Marshall, John M, Kingsport  
 \*McConnell, Fredrick Gray, Kingsport  
 McCoy, James L, Kingsport  
 McGinn, Debra Lee, Kingsport  
 McGuire, James Eldridge, Kingsport



McIlwain, William A, Bristol  
 McKay, Robert D, Bristol  
 McMurray, John Mark, Kingsport  
 McNamara, Gregory Michael, Kingsport  
 Melvin, Frank Michael, Kingsport  
 Michals, Herbert James, Kingsport  
 Miller, Bradley Willis, Bristol  
 Miller, David, Kingsport  
 Miller, Jerry Lee, Kingsport  
 Mishkin, Fredric Ronald, Kingsport  
 \*Mitchell, Joe Elias, Bristol, VA  
 Mitoraj, Thomas E, Bristol  
 Moffet, Eric David, Kingsport  
 Mooney, Neil Francis, Bristol  
 Moore III, John H, Kingsport  
 Morgan, Steven W, Bristol  
 Morris, Lawrence Ray, Kingsport  
 Morton, Ralph F, Kingsport  
 Mosrie, Azett Jimmie, Kingsport  
 Murray Jr, Marion Julian, Bristol  
 Nagalla, Lakshman R, Bristol  
 Neely, E R, Kingsport  
 Nichols Jr, James B, Kingsport  
 Nicley, Floyd Edward, Bristol  
 Northrop, Robert Edwards, Kingsport  
 Olney, La Verne E, Kingsport  
 Patton, Charley Mack, Kingsport  
 Patton, Robt Carroll, Kingsport  
 Pearson, Randall Eugene, Kingsport  
 Peavyhouse, Joel Q, Kingsport  
 Penny, Richard M, Bristol  
 Perez Jr, Ruperto E, Kingsport  
 Perlman, Paul Elliot, Kingsport  
 \*Pettigrew, James Andrew, Bristol  
 Phillips, James B, Kingsport  
 Phillips, James Curtis, Kingsport  
 Phillips, Michael S, Kingsport  
 Platt, William Marshall, Kingsport  
 \*Powers Jr, John S, Kingsport  
 Propper, Norman S, Kingsport  
 Rash, J Patrick, Kingsport  
 Reddick, Lovett P, Kingsport  
 \*Reed, John S, Kingsport  
 Reiff, Robert H, Kingsport  
 Renfro, Clay Arlen, Kingsport  
 Repass, Robt A, Bristol, VA  
 Reynolds Jr, Leslie B, Kingsport  
 Ridgeway, Nathan Alvah, Kingsport  
 Robbins, Jeffrey Philip, Bristol  
 Roberson, Travis Hubert, Church Hill  
 \*Rogers, Malcolm E, Kingsport  
 Rolan, Alvin Curry, Bristol  
 Rosser, Robert A, Kingsport  
 Russell, David Paul, Bristol  
 Salcedo, Julio A, Kingsport  
 Sargent, Jeffrey Dale, Bristol  
 Schermer, William J, Bristol  
 Schilling, David E, Church Hill  
 Sewell, David H, Kingsport  
 Sides Jr, Paul J, Kingsport  
 Sikora, Frank Steven, Bristol  
 Slaughter, Frederick D, Bristol  
 Slocum, Carl Wm, Kingsport  
 Smiddy, Joseph F, Kingsport  
 Smith, Galen R, Kingsport  
 Smith, Ken W, Kingsport  
 \*Smith, Lyle R, Kingsport  
 Smith, Ronald Steven, Kingsport  
 Smith, William David, Bristol  
 Sobel, Abraham Isaac, Kingsport  
 Solomon, Dale E, Kingsport  
 Spear, John Michael, Bristol  
 Springer, Douglas John, Kingsport  
 Standridge, John B, Kingsport  
 Strader, Lorenzo D, Bristol  
 Strang Jr, Robert T, Kingsport  
 \*Strang, Robt Tudor, Kingsport  
 Stubbs, Hal Session, Bristol  
 Sulkowski, Viktor P, Kingsport  
 Sullivan, Hugh Milton, Kingsport  
 Sullivan, Michael Jude, Kingsport  
 Talton Jr, Brooks M, Kingsport  
 \*Todd, Thomas C, Bristol  
 Toothman, Clara J, Bristol, VA  
 Turner, Harrison D, Kingsport  
 Valdes-Rodriguez, Antonio, Kingsport  
 \*Vance Jr, Frederick V, Bristol  
 Wadewitz, Peter, Kingsport  
 Weir, William Strickland, Bristol  
 Westerfield, Larry H, Kingsport  
 Westmoreland, Dennis G, Kingsport  
 Whisnant, William Howard, Bristol  
 \*Whitaker Jr, Sidney S, Bristol  
 \*Whitt, Hiram Jackson, Kingsport  
 Wike, Sidney Alfred, Bristol  
 Williams, Robt Herman, Kingsport  
 Williams, Timothy Michael, Kingsport  
 Wilson III, Robert John, Kingsport  
 Wilson, Earl K, Bristol  
 Windes, Lois H, Kingsport  
 Winsor, Michael Jon, Kingsport  
 Wolfe, James W, Gate City, VA  
 Wood Jr, Matthew W, Bristol  
 Wyker, Arthur Townsend, Kingsport  
 Young, Ruth T, Kingsport  
 Zaidi, Sarfraz Ali, Bristol

#### SUMNER COUNTY MEDICAL SOCIETY

Bartek, Anne P, Gallatin  
 Bartek, John G, Gallatin  
 Beaver, B Daniel, Portland  
 \*Blackshear, J R, Gallatin  
 Brown, Lloyd Tynte, Gallatin  
 Cagle, Diedre, Gallatin

Caldwell, William Rudolph, Gallatin  
 Carey Jr, Jack Willard, Hartsville  
 Carter, Thomas Foster, Westmoreland  
 Case Jr, Kenneth Ryon, Gallatin  
 Colom, Raymond, Portland  
 Cox, Joe David, Gallatin  
 Critz, George Theodore, Gallatin  
 Diaz, Michael C, Hendersonville  
 \*Dittes, Albert G, Portland  
 Flynn, John, Nashville  
 Furman, John Robert, Madison  
 Gillespie, James Robert, Hendersonville  
 Goodin, Ellis Len, Gallatin  
 Handal, Albert M, Portland  
 Hill, Ted W, Gallatin  
 Hooper Jr, H Wayne, Gallatin  
 Hooper, Halden Wayne, Gallatin  
 King, A Sidney, Gallatin  
 Lanz, Elwin, Hendersonville  
 Lilly, James Aaron, Gallatin  
 Linden, Barry E, Gallatin  
 MacConnell, Clayton, Gallatin  
 Massey, William Roe, Gallatin  
 McAleavy, John C, Hendersonville  
 McCuskey, Scott, Hendersonville  
 McDaniel, Robert E, Gallatin  
 McNulty, John P, Portland  
 Miller, Ronald V, Gallatin  
 Mitchell, Elizabeth, Gallatin  
 Mitchell, Robert T, Gallatin  
 Newsom, David L, Gallatin  
 Ponce, Lu, Portland  
 Rooney, John J, Portland  
 Roth, James Edwards, Hendersonville  
 Ruark, Charles S, Old Hickory  
 Ruckle, R H, Portland  
 Sanders, Clarence Ramey, Gallatin  
 Simonton Jr, Ralph W, Portland  
 Spencer, Charles Norman, Gallatin  
 Stewart, William David, Gallatin  
 Thompson, John K, Gallatin  
 Todd, M Alfred, Gallatin  
 Tormes, Felix R, Hendersonville  
 \*Troutt Jr, James R, Gallatin  
 Varner, James W, Hendersonville  
 \*Wallace, John B, Gallatin  
 Webb, Robert T, Gallatin  
 Webster, Robt Clayton, Gallatin  
 Wesley, Raymond, Hendersonville  
 White, Joan W, Gallatin  
 Willis, Robert A, Gallatin

#### TIPTON COUNTY MEDICAL SOCIETY

\*Alexander, Warren Alison, Covington  
 Beasley, Jimmie L, Covington  
 Bolton, Travis Leon, Covington  
 Broffitt, Samuel L, Covington  
 Cannon Jr, Jesse J, Covington  
 Crown, Loren Arthur, Memphis  
 Goode, Fletcher Howard, Millington  
 Ho, Juinn H, Millington  
 \*Hyatt, Norman Lyle, Covington  
 Janovich, John R, Covington  
 Jonas, Karl C, Covington  
 Matthews, Barret, Covington  
 McCullough, Billie S, Covington  
 \*Ruffin Jr, James S, Covington  
 Vaughn, Hugh Wynn, Munford  
 Viprakasit, Dejo, Covington  
 Viprakasit, Suttiwara, Covington  
 \*Witherington Jr, A S, Munford  
 \*Witherington, James D, Covington

#### WARREN COUNTY MEDICAL SOCIETY

Aptowitz, Frederick, McMinnville  
 Beatty, Brian Craig, McMinnville  
 Bigbee, Wallace Burns, McMinnville  
 Bratton, David M, McMinnville  
 Burck Jr, Harry E, McMinnville  
 Caten, Joseph, McMinnville  
 Chastain, Bryan D, McMinnville  
 Davis, W Glenn, McMinnville  
 DelValle, Rene Carlos, McMinnville  
 Fisher, Jos F, McMinnville  
 Gaw, J C, McMinnville  
 Glenn, Robert F, McMinnville  
 Glover, Dannie Welden, McMinnville  
 \*Harris, Hoyt C, McMinnville  
 Haynes, Douglas Brandt, McMinnville  
 Jacobs, G Jackson, McMinnville  
 \*Knochs, Uldis A, Palm Coast, FL  
 \*Knowles Jr, William W, Smithville  
 McAbee, Wendell, McMinnville  
 Mukherji, Barunditya, McMinnville  
 Pedigo, Jeanne M, McMinnville  
 Pedigo, Thurman Lee, McMinnville  
 Ragsdale, Tommy Mac, McMinnville  
 Rhinehart, Margaret Wrenn, Spencer  
 \*Smoot, Bethel Campbell, McMinnville  
 Sorenson, Kent W, McMinnville  
 Spivey, Oscar Smith, McMinnville  
 Troop Jr, Joe Raymond, McMinnville  
 Whitmore, Mark Allan, McMinnville  
 Woodlee, Jimmie Dale, McMinnville  
 Young, William D, McMinnville

#### WASHINGTON-UNICOI-JOHNSON COUNTY MEDICAL ASSOCIATION

Able, Stephen Smith, Tucson, AZ  
 Ahmad, Irshad, Johnson City  
 Aiken, Marc A, Johnson City

Alison, Harold W, Johnson City  
 Allen, Charles Edward, Johnson City  
 Allen, Robert C, Johnson City  
 Archie, David S, Johnson City  
 Atwell, Phyllis Sage, Johnson City  
 Bailey Jr, William P, Johnson City  
 Battle Jr, James Wayne, Johnson City  
 Battle, Gay Kirchner, Johnson City  
 Beaver, Walter Richard, Johnson City  
 Berk, Steven L, Johnson City  
 Berry, Boyce M, Johnson City  
 Bertotti, Marian L, Johnson City  
 Blaik, Ziad, Johnson City  
 Borel, Terry C, Johnson City  
 Borthwick, Thomas R, Johnson City  
 \*Bowman, Joseph R, Johnson City  
 Bowman, Robert C, Johnson City  
 Box, Stephen T, Johnson City  
 Boyd, Kendall H, Johnson City  
 Bray, Elizabeth S, Johnson City  
 Bridgeforth Jr, William Adams, Johnson City  
 Broadwell, Freeman Edward, Johnson City  
 Browder, Isaac W, Johnson City  
 Brown Jr, Paul Edward, Johnson City  
 Budd, Duane Coleman, Johnson City  
 \*Campbell, E Malcolm, Piney Flats  
 Cancellaro, Louis A, Johnson City  
 Caravello, Peter M, Johnson City  
 Chastang, Andrea, Mountain City  
 Chung, Sue Yong, Johnson City  
 Clark, Robt L, Johnson City  
 Clemons, Donald E, Johnson City  
 Cole, Charles Pittman, Johnson City  
 Cone, William Joseph, Johnson City  
 Coogan, Philip S, Johnson City  
 \*Cosby Jr, Lewis F, Johnson City  
 \*Crockett, Douglas Harman, Johnson City  
 Crozier Jr, James E, Johnson City  
 Cupp Jr, Horace Ballard, Johnson City  
 David, Daniel J, Johnson City  
 Davis, W Duncan, Johnson City  
 DeTroye, Robert J, Johnson City  
 DeWitt, Albertine, Johnson City  
 DeWitt, Jan Allen, Johnson City  
 Dengler, John Martin, Johnson City  
 Dennis, Robt G, Johnson City  
 Deshmukh, Kiran Manohar, Johnson City  
 Dhaliwal, Avtar Singh, Johnson City  
 \*Doak, Alfred D, Johnson City  
 \*Doane, David G, Johnson City  
 Donahue, Don, Johnson City  
 Donovan, Brian P, Johnson City  
 Donovan, Mark L, Johnson City  
 Dossett Jr, Burgin E, Johnson City  
 Downs, Christopher J, Gray  
 Drumwright, Curtis K, Johnson City  
 Dunkelberger, Brian H, Johnson City  
 Dunworth, Robert G, Johnson City  
 \*Edens, Fred R, Johnson City  
 Edwards, Thomas A, Johnson City  
 Elliott, Richard Levere, Johnson City  
 \*Ellis, MacKinnon, Gray  
 Evans, James, Johnson City  
 Farrow, Jeff Richard, Johnson City  
 Fenley, John D, Johnson City  
 Fish, Charles Abraham, Johnson City  
 Fleenor, Karen E, Johnson City  
 Freeman, David Noble, Johnson City  
 \*Fulton, Lyman Avar, Mountain Home  
 \*Gage, Kathleen, Johnson City  
 \*Garland, Newton Farr, Johnson City  
 Gibson Jr, James W, Johnson City  
 Gibson, Mary Jane, Johnson City  
 Gillespie, Chris L, Gray  
 Godfrey, James Hodge, Johnson City  
 \*Gordon Jr, Lawrence E, Johnson City  
 Gorman, Paul W, Johnson City  
 Goulding III, E Clarence, Johnson City  
 Goulding Jr, Clarence E, Johnson City  
 Graham, Larry Gill, Johnson City  
 Gubler, Robt Jay, Johnson City  
 Haley, Tony O'Neal, Johnson City  
 \*Hall, Ben David, Johnson City  
 Hamel, Steven C, Johnson City  
 \*Hankins, Walter Douglas, Johnson City  
 Harris, Arthur Sale, Johnson City  
 Hartley, Frederick C, Johnson City  
 Hatjioannou, Jason T, Johnson City  
 Haws, Claude C, Johnson City  
 Hemphill, Chris B, Johnson City  
 Herd, J Kenneth, Johnson City  
 Herrin, Charles Bomar, Johnson City  
 Hillman, Charles Harlan, Johnson City  
 Hines Jr, Robert Stickley, Johnson City  
 Hinton, Philip J, Johnson City  
 Holbrook, John L, Johnson City  
 Hollier, Paul A, Erwin  
 \*Holsey Jr, Royce L, Naples, FL  
 Howell, Mark Allan, Johnson City  
 Huddleston, Sam N, Johnson City  
 Huddleston, Thomas L, Johnson City  
 Hudson, Larry D, Johnson City  
 Hutchins, Robert Gordon, Johnson City  
 Hyder Jr, Nat Edens, Johnson City  
 Jelovsek, Frederick R, Johnson City  
 Jernigan, Thomas W, Johnson City  
 Johnson Jr, Frank P, Johnson City  
 Johnson, Calvin John, Johnson City  
 Johnson, John C, Johnson City  
 Jones, David W, Johnson City  
 Jordan Jr, L Collier, Johnson City  
 Joshi, Piyush N, Johnson City  
 Kennedy, Wm Ennis, Johnson City  
 Kimbrough, Barbara O, Johnson City  
 Kimbrough, Stephen M, Johnson City



Kincaid, William Ralph, Johnson City  
 Lacey, David W, Johnson City  
 Lamb, Ray, Johnson City  
 Lang, Forrest, Johnson City  
 Lapham, Craig A, Johnson City  
 Lawson, Elizabeth Anne, Johnson City  
 \*Lawson, John Fuller, Johnson City  
 Lloyd, Jacqueline Jordan, Johnson City  
 \*Long, Carroll Hardy, Johnson City  
 Lopez, Alfonso D, Johnson City  
 Lurie, David P, Johnson City  
 Maden, William L, Johnson City  
 Mahoney, James Cooper, Johnson City  
 \*Mathes Jr, W T, Johnson City  
 Mathew, William H, Mountain Home  
 May, Scott E, Johnson City  
 \*McCartt, Alan N, Johnson City  
 McCoy, Sue, Mountain Home  
 McGinnis, Thomas Bryan, Johnson City  
 McGowan Jr, Winford R, Johnson City  
 McGowan, Judson C, Johnson City  
 McGowan, Ronald L, Johnson City  
 \*Meeks, Edwin A, Jonesborough  
 Mehta, Jay B, Johnson City  
 Messerschmidt, William H, Johnson City  
 \*Mettetal, Ray Wallace, Johnson City  
 Michal, Mary L, Johnson City  
 Miller, John Mc Clellan, Johnson City  
 \*Miller, W Rutledge, Blowing Rock, NC  
 Mills, Ralph L, Johnson City  
 Mitchell, Jarlath J, Johnson City  
 Modica, Louis A, Johnson City  
 Moffatt, Lawrence Strong, Johnson City  
 Monderer, Rachel, Johnson City  
 Montenegro, Franklin, Johnson City  
 Morgan Jr, Calvin Vere, Johnson City  
 \*Morrison Jr, Richard S, Johnson City  
 Moss Jr, Harry Cowan, Johnson City  
 Moulton II, David F, Johnson City  
 Myers, Kevin James, Johnson City  
 Nery-Manalo, Nora, Johnson City  
 \*Olsen, Orland Stenberg, Johnson City  
 \*Parker Jr, Charles O, Johnson City  
 Pearson, James M, Johnson City  
 Peyton, Richard R, Bristol  
 \*Platt, John P, Hilton Head, SC  
 \*Potter Jr, Thomas P, N Ft Myers, FL  
 Powell, R Page, Johnson City  
 Rabon, Randal J, Johnson City  
 Ragheb, Sherif M, Davenport, IA  
 Rainwater, Dennis L, Johnson City  
 Ramsey, Glynda Jo Fox, Johnson City  
 \*Range, James Jacob, Johnson City  
 Rannick, Gilbert A, Johnson City  
 Richardson, B A, Johnson City  
 Roe, David P, Johnson City  
 Rollins, Edward S, Johnson City  
 Rollins, Susan Davidson, Johnson City  
 \*Ruffin, Clarence Lee, Johnson City  
 \*Sams, James Mac, Johnson City  
 Schmidt, Lawrence W, Johnson City  
 \*Scholl, Geo Kenneth, Johnson City  
 Schueller, William Alan, Johnson City  
 Seidel, Terry W, Johnson City  
 Seifer, Frederic D, Johnson City  
 Sentell, Marcia M, Johnson City  
 Shahbazi, Michael F, Johnson City  
 \*Shelton, Alvin Dillard, Johnson City  
 Shepard, Frank Michael, Johnson City  
 \*Sherrod, Howell Hood, Johnson City  
 \*Sholes Jr, Dillard M, Johnson City  
 Sholes, Christopher W, Johnson City

Sibley, David A, Johnson City  
 Sibley, Denise Swink, Johnson City  
 Smith, J Kelly, Johnson City  
 Smith, Richard S, Kingsport  
 Soike, David R, Johnson City  
 Spady, Michael, Johnson City  
 Spannuth, C L, Johnson City  
 Spence, George Ian, Johnson City  
 Stanton, Paul Eugene, Johnson City  
 \*Steffner, Edward Benj, Johnson City  
 Sykes, Ted Ford, Johnson City  
 Tabor, David C, Johnson City  
 Taylor, Nancy Lynn, Johnson City  
 Taylor, Robert A, Johnson City  
 Thomas, Eapen, Johnson City  
 Thur De Koos, Paul, Johnson City  
 Vandiver Jr, Clayton J, Johnson City  
 Vermillion, Stanley E, Johnson City  
 Votaw, May Louise, Johnson City  
 \*Waggoner, Harry N, Johnson City  
 Walters, David N, Johnson City  
 Walters, Phil Vernon, Johnson City  
 Ward, John Arthur, Johnson City  
 Watson, Scott Dale, Erwin  
 Webb, Clinton Steve, Johnson City  
 Welch, David B, Johnson City  
 Whitson, Michael L, Johnson City  
 Wiegand, Clifford F, Johnson City  
 Wiley Jr, William Arthur, Johnson City  
 Williams, Elizabeth A, Johnson City  
 Williams, G Alex, Johnson City  
 Williams, Henry Jackson, Johnson City  
 Williams, Marcus G, Johnson City  
 Williams, William T, Jonesborough  
 Wilson, David M, Johnson City  
 Wilson, G Dean, Johnson City  
 Wilson, James Marion, Johnson City  
 Winton, George B, Johnson City  
 Witt, Peter C, Johnson City  
 \*Wofford, Chas Parker, Johnson City  
 Wood, James Fowle, Johnson City  
 Wyche, Donald B, Johnson City  
 Wyche, Mary, Johnson City

#### WHITE COUNTY MEDICAL SOCIETY

\*Andrews, W H, Sparta  
 Baker Jr, Robert F, Sparta  
 \*Baker, Robert F, Sparta  
 Bradley, Donald Hughes, Sparta  
 Drake, Alan, Sparta  
 Johnson, Joel F, Sparta  
 Lytle, Francisca VanGeloven, Baxter  
 \*Mitchell, Charles A, Sparta  
 Nesbett, Billy C, Sparta  
 Smith, Leighton H, Sparta

#### WILLIAMSON COUNTY MEDICAL SOCIETY

Arnett III, Eugene Britton, Franklin  
 Bethurum, Alva Jefferson, Franklin  
 Brooks, Arthur Scott, Franklin  
 Browne, Harry G, Nashville  
 Clarke, Lois, Franklin  
 Coggeshall, Jack W, Franklin  
 Cook, W Gregory, Franklin  
 Curtis, Shannon, Franklin  
 Dodge, Kenneth Brenton, Franklin  
 Duncan, John W, Franklin  
 Dykes, Katherine Anne, Franklin

Erlich, Wolf J, Franklin  
 Evins, Starling Claude, Franklin  
 Ferrell, M Craig, Franklin  
 \*Guffee, Harry Jasper, Franklin  
 Haley, Fred L, Franklin  
 \*Halliday, William R, Nashville  
 Himmelfarb, Elliot Harvey, Franklin  
 Hollister, Robt Morris, Franklin  
 Holly, Howard Rhea, Franklin  
 Hutcheson Jr, Robt Henry, Franklin  
 Jantz, Thomas Augustus, Franklin  
 Jerkins, Terri Wood, Nashville  
 Kahn, Nancy Esta, Nashville  
 Kennedy, James S, Franklin  
 Lane, Richard Geoffrey, Franklin  
 Langford, Michael D, Franklin  
 Lee, Anthony Joel, Franklin  
 Locke, Joel R, Franklin  
 Manson, James Edward, Franklin  
 McGinley, James Henry, Franklin  
 Meneely, Raymond L, Franklin  
 Miller, Philip G, Franklin  
 Mishu, Mona Kirma, Brentwood  
 Mullins, W Michael, Franklin  
 Nagy, Huba, Franklin  
 Netherton, Cynthia L, Franklin  
 Oldham, Robert Kenneth, Franklin  
 Omohundro III, John M, Franklin  
 Parsons, Paul D, Franklin  
 Phillips, James Eugene, Franklin  
 Rhea, Karen Ann, Franklin  
 Russell, Henry P, Franklin  
 Savage, H Bryant, Franklin  
 Shvitz, Ira A, Franklin  
 Stilwell Jr, Charles A, Franklin  
 \*Swann, Steven Walter, Evans, GA  
 Thomas, Paul A, Franklin  
 Wallwork, J Caleb, Brentwood  
 White, Bobby Joe, Franklin  
 Williams, Wayne Patrick, Franklin  
 Willoughby, Jos Leeper, Franklin  
 York, Douglas Clifton, Franklin

#### WILSON COUNTY MEDICAL SOCIETY

Bradshaw Jr, James C, Lebanon  
 Brown, Barry J, Lebanon  
 Caudill, Lloyd D, Lebanon  
 Coleman, Jack A, Lebanon  
 Dedick, Paul, Lebanon  
 Farrar, Henry C, Carthage  
 Ferguson, Morris Dean, Lebanon  
 Gill, Charles M, Lebanon  
 Gregory, Kelly G, Lebanon  
 Grime, Harvey H, Lebanon  
 Hopkins, Sharon D, Lebanon  
 \*Lowe, Charles T, Lebanon  
 Martin, George C, Lebanon  
 \*McFarland, Sam B, Lebanon  
 McKinney, Roger E, Lebanon  
 Mitchell Jr, Charles A, Lebanon  
 Morris II, James W, Lebanon  
 Pawlowski, W Yvonne, Lebanon  
 \*Purvey, Thomas Richard, Lebanon  
 Robertson, Geo Wm, Lebanon  
 Rogers, Carl W, Lebanon  
 \*Turner, Robert Phillips, Nashville  
 Warren, Larimore, Lebanon  
 West, Richard Joe, Lebanon  
 Wiggins, Bernard A, Lebanon

### DECEASED PHYSICIANS—1992

Adams Jr, John W, Chattanooga  
 Adams Jr, Robt Walker, Nashville  
 Akin, Robt Louis, Knoxville  
 Anderson, Harry S, Chattanooga  
 Armes Jr, William Herbert, Collierville  
 Ballou, Gordon Steely, Knoxville  
 Braun, Winston, Memphis  
 Cannon, Geo Marshall, Signal Mountain  
 Clark, Malcolm E, Livingston  
 Clark, Murrell O, Chattanooga  
 Cohen, Morris D, Memphis  
 Crawford, Lloyd V, Memphis  
 Crenshaw, Andrew Hoyt, Memphis  
 Crews, John Pearce, Oak Ridge  
 Fessey, Ray O, Nashville  
 Freedman, Harold D, Lenoir City  
 Gehorsam, Elsbeth, Memphis  
 Gray Jr, Edwin E, Winchester

Greer, Fulton M, Brentwood  
 Harvey, Robert H, Erwin  
 Hayes Jr, Tuckey J T, Knoxville  
 Hibbett III, Basye K, Nashville  
 Holt, Huey Thos, Memphis  
 Jacobson, Linda A, Bristol  
 James, Dewitt B, Chattanooga  
 Julich, Arthur Wilson, Memphis  
 Kash, Roscoe Conkling, Lebanon  
 Lash, Robt F, Knoxville  
 Leathers, James Porter, Lebanon  
 Lee, Seung H, Paris  
 Lockwood Jr, Dudley G, Hernando, MS  
 Maguda, Thomas Andrew, Venice, FL  
 Malone II, William B, Memphis  
 McKee, Thomas Preston, Johnson City  
 McMurry, Joseph Searle, Knoxville  
 Morgan Jr, Harcourt A, Lewisburg

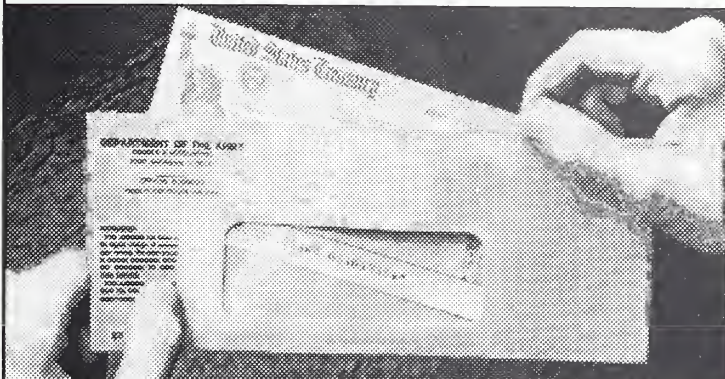
Murphey Jr, Fay B, Chattanooga  
 Niceley, Eugene Park, Knoxville  
 Ogle, Homer Campbell, Knoxville  
 Powell, William Forrest, Knoxville  
 Powers, Bruce Rankins, Knoxville  
 Puckett, Jerry E, Smithville  
 Randolph, Jerry F, Memphis  
 Ross, Kenneth Guysteau, Paris  
 Ruley, Henry B, Oak Ridge  
 Schreier, Phillip Chas, New Orleans, LA  
 Simpkins Sr, Thomas E, Nashville  
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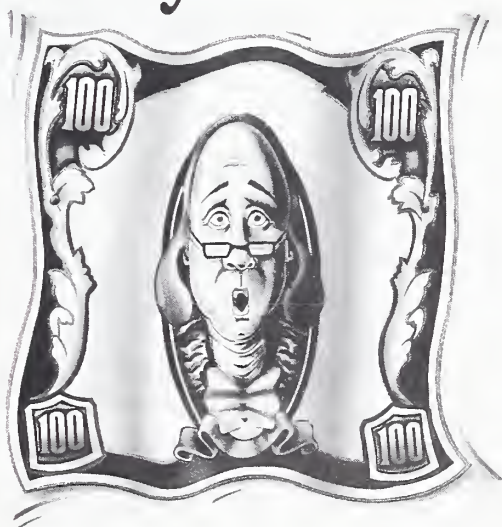
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## FAMILY PRACTITIONERS

Rural community health centers located in beautiful mountains of northeast Tennessee are accepting CVs from Family Practitioners for a staff physician position at the Bluff City Medical Clinic in Sullivan County. Guaranteed salary with excellent benefits including paid malpractice insurance, continuing education assistance, a retirement program, and moving expense allowance. Approved loan repayment site.

Contact Ms. Taunja Bogart, Rural Health Services Consortium, 4389 Highway 11-E, Bluff City, TN 37618. Phone: (615) 538-3138. (EOE)





NOT TO CIRCULATE



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